ENGLISH INFLUENCES ON AMERICAN STAGING PRACTICE:

A CASE STUDY OF THE CHESTNUT STREET THEATRE,

PHILADELPHIA, 1794—1820

VOLUME I

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

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* * * * * * *

The Ohio State University
1967

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CHAPTER I

INTRODUCTION TO THE STUDY

On the 17th of February, 1794, the Chestnut Street Theatre, under the management of Thomas Wignell and Alexander Reinagle, opened its doors to the public of Philadelphia. Still uncompleted when it opened—it was finally finished in 1804 by Henry Latrobe—the building which housed the splendid company of English actors recruited by Wignell was nevertheless the finest theatrical house in the United States at the time, and for many years to come.

Unlike many of the playhouses which preceded it in America, the Chestnut Street house was built expressly as a theatre from plans supplied by an English "architect," John Inigo Richards. The theatre on Chestnut Street was no makeshift structure, but a well designed building, planned to provide maximum comfort for its patrons and maximum facilities for its productions. While most eighteenth century America theatres, the Southwark Theatre in Philadelphia and the John Street Theatre in New York, for example, had square-shaped auditoriums seating less than a thousand people, the Chestnut Street Theatre, or New Theatre as it was often referred to, exhibited the
semi-circular or elliptical seating arrangement of contemporary
English theatres and seated nearly 2,000 in its lavishly appointed
auditorium.

From the opening of its doors in 1794, to its destruction by
fire on April 2, 1820, the Chestnut Street Theatre reigned as the
undisputed queen of American theatres. Before it, there had been the
John Street Theatre in New York, the Southwark and Society Hill in
Philadelphia, the Nassau Street, Beekman Street, Providence and
Newport theatres, and the theatres in Boston, Charleston, and
Richmond. Each, in its small way, contributed something to the
American theatre. Each provided a facility for the production of
English plays; some, like the theatres in New York and Philadelphia,
boasted a small stock of English scenery shipped from England by
boat. Yet each of these theatres was painfully inadequate. Most were
inferior to even the meanest of English provincial playhouses. In
these leaky frame structures, however, in an environment of tattered
and flaking scenery, the spirit, if not the essence, of the theatre
was kept feebly alive during the American colonial period.

Following the destruction of the first Chestnut Street Theatre
in 1820, American theatrical activity took on a new look. Numerous
theatres, including the second theatre in Chestnut Street, pre-empted
the position once held by the New Theatre in Philadelphia. In New
York alone, for example, the New Park Theatre (1821), the Chatham
Garden Theatre (1824), the Bowery Theatre (1826) which, with its auditorium seating about 3,000 people, was the largest theatre yet to be built in America, and the Lafayette (1827), each in its own right eclipsed the first Chestnut Street Theatre. Like the theatres of the Colonial era, these theatres continued to produce English plays, but now the look, while still English in essence, was becoming more "Americanized." American dramas and American actors began to appear with far more regularity, receiving more enthusiastic support from audiences. Still, an English patron seated in the pit of the second Park Theatre, for example, would have felt himself very much at home.

The Chestnut Street Theatre of 1794 stands midway between the tentative efforts of the Colonial theatres and the freewheeling theatrical activity of the 1820's and 1830's. The Chestnut Street Theatre and the company which it housed are pivotal in the development of the theatre in America. The house on Chestnut Street stands as the culmination of early American theatrical efforts, while serving at the same time as the touchstone for American theatrical activity to the present day.

The present study explores the thesis that in most respects the theatre on Chestnut Street was an English institution. The stage and the building which housed it were in the English tradition, strongly influenced by English thought, taste, and practice. Plays, production design, and production techniques were correspondingly in
the English tradition. Several studies have dealt with theatrical practices and productions during the period 1794 to 1820, but no single study has essayed a detailed analysis of the extent to which British practice and influence obtained in the American theatre. An examination of American points of departure from British practice, if indeed such points of departure existed, is also sadly lacking in the literature which deals with this period.

The Chestnut Street Theatre proves an excellent subject for a case study of English influence in American theatrical activity. For the most part, during the period 1794 to 1820, the Chestnut Street Theatre company was prosperous and enjoyed a strong continuity of management. From its opening in 1794, the theatre flourished under the management of Wignell and Reinagle. Upon Wignell's death in 1798, co-management was assumed by his widow, the former Mrs. Merry. With the marriage of the Widow Wignell to William Warren, the English actor, and the subsequent death of Reinagle in 1807, the company's fortunes came under the control of Warren and William B. Wood. While there appear to have been occasional periods of financial and managerial strain, this partnership continued, more or less fruitfully, until 1826, when it was finally dissolved by mutual agreement.

The stability of the Chestnut Street institution accounted for much of the success of the company, especially during those years in
Philadelphia when competition from other theatrical houses was exceptionally keen. Moreover, this stability appears to have been responsible for the large number of records which have survived to the present from the Chestnut Street Theatre. These records, which include diaries, journals and day books, financial records, and prompt books, have been invaluable in the present study. Most of these materials serve to represent the day to day operation of the theatrical company, but reveal little of consequence concerning the theatrical practices of the company or the influences on that practice. The prompt books which survived the fire of 1820 contain several interesting bits and pieces of information concerning staging practice, but provide insufficient information to permit the development of a comprehensive evaluation of that practice.

While a relatively large amount of data and records from the Chestnut Street Theatre and from the early nineteenth century American theatre in general survived, iconographic materials from American theatres of the early nineteenth century are scant. The works of American stage designers, while much admired on the stage, had little stature in nontheatrical circles, and there appears to have been little impetus to preserve sketches and renderings of settings and
Consequently, until a few years ago, the only known illustration of the interior of the Chestnut Street Theatre, an illustration which also presented a view of the stage with a setting in place, was the engraving by Ralph which appeared in the New York Magazine for April, 1794.

The Henry Warren Scrapbook.--In 1963, Dr. James Ayers, of the University of Texas, made available to the Ohio State University Theatre Collection a document that has provided valuable new information concerning production practices at the Chestnut Street Theatre, as well as information relating to the architectural sources for the facade of the building and the arrangement of the auditorium and stage machinery. This document, a scrapbook, contains materials related to the life and work of Henry Warren, designer at the Chestnut Street Theatre from about 1810 until the destruction of the theatre in 1820.

Henry Warren was born in England in 1793. The younger brother of William Warren, manager of the theatre at Chestnut Street, Henry came to America in 1806 with William. He appears to have studied with Holland, the second designer engaged by Wignell, and to have worked

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1William Dunlap, The Art of Design History (Boston: C.E. Goodspeed & Co., 1918). In this three volume work, virtually no mention is made of the major painters at the Chestnut Street Theatre. Holland, Milbourne, Robbins, Hugh Reinalge and Henry Warren are all missing from Dunlap's record.
with Luke Robbins and Hugh Reinagle. While the present study is
concerned only with Warren's work at the first theatre, it should be
noted that he painted at the second Chestnut Street Theatre, also,
where he held the post of principal painter in that theatre until
about 1830.

Warren's Scrapbook contains costume, furniture, and set
designs; playbills and notices from the Chestnut Street Theatre;
letters of the Warren family; a substantial assortment of pictorial
materials including Juvenile Drama sheets, frontispieces from English,
German, and French acting editions; and engravings of various English
and European nontheatrical works. This Scrapbook, as a formal
document, was probably not compiled by Henry Warren. Analysis of
handwriting specimens which appear in the letters, designs, and
captions of the Scrapbook suggests that the materials were assembled
and mounted by someone other than Henry Warren. What little evidence
there is suggests that the Scrapbook was compiled by Alfred Warren,
Henry's youngest son.

The materials in the Warren Scrapbook reflect no chronology.
Pictorial materials were evidently accumulated from a wide range of
sources. Taken by itself, the scrapbook does not provide material
enough for a comprehensive examination of the Chestnut Street Theatre.
But in conjunction with other source materials, the scrapbook provides
new insights into production and production practices in the New
Theatre and reveals much about the building and stage which housed the Chestnut Street company.

**Plan of the Study.**—The present study is presented in five major chapters, exclusive of introductory and concluding chapters. Each of these chapters deals with a single aspect of the Chestnut Street Theatre. In each instance American practice, as exemplified by the Chestnut Street Theatre, is discussed; then, corresponding English practice is drawn into the analysis in an effort to demonstrate the parallels which existed between activities in the theatres of the two countries.

Chapter II is devoted to a study of the facade of the Chestnut Street Theatre building. Numerous misconceptions concerning the design and design origins are dealt with in this chapter, in an effort to determine with accuracy the influences which shaped the appearance of this building.

Chapter III deals with the inside of the Chestnut Street house, with the auditorium, lobbies, and stairways and passages of the theatre. The bulk of the work in this area originates with the present author, for the materials in the Warren Scrapbook have facilitated a far more extensive investigation into this area of the Chestnut Street house than has previously been possible.

Again making extensive use of materials from the Warren Scrapbook, Chapter IV examines the stage and stage machinery of the
Chestnut Street Theatre, relating these areas to general American practice and comparing them to English practice during the same period. Specific details such as wings, borders, backscenes, grooves, traps, and stage machinery for lifting, flying, and lowering are analyzed in detail.

Chapter V deals with the stage picture at the Chestnut Street Theatre and with the painters who created this picture. Here the term "stage picture" is employed in a narrow sense, referring to only the painted or pictorial elements which appeared on the stage of the Philadelphia house. In this chapter is explored the scenic tradition at the theatre, with an analysis of the works of the painters who were employed at the theatre during its twenty-six year existence.

The final chapter in the study, Chapter VI, presents a reconstruction of Act I, scene i, of Andrew Cherry's *The Travellers*, as produced at the Chestnut Street Theatre and a reconstruction of the January 1, 1817 production of Farley's *Aladdin*. Here, as in the preceding chapter, extensive use is made of the pictorial materials in the Warren Scrapbook.

Finally, Appendix C, the major appendix of the present study, presents a reconstruction of the Chestnut Street Theatre, with drawings by the author. This reconstruction is based on the materials in the Warren Scrapbook and on a composite of evidence contemporaneous with the Chestnut Street Theatre.
The organization of the five chapters which comprise the body of the present study has been developed to present a comprehensive picture of the Chestnut Street Theatre—its building, its stage facilities, and the scenic elements placed upon its stage. The present study does not attempt to examine the areas of business management, acting, or costume design. For the most part the study focuses its attention on the Philadelphia theatre. However, where pertinent material exists in other theatres of the Chestnut Street circuit, these theatres have been included, in a limited manner, in the study.

The Literature of the Chestnut Street Theatre

In order to place the present study within the context of other studies of the American theatre generally and the Chestnut Street Theatre specifically, it will be well to survey briefly the principal works which have preceded this study. Almost without exception, general histories of the American theatre have based their remarks concerning the Chestnut Street Theatre on two early historical sources. Unfortunately, both of these sources are inaccurate to some degree. Chronologically, these sources are William Dunlap's History of the American Theatre (1831)\(^2\) and Charles Durang's History of the

Philadelphia Stage, the latter a series of newspaper articles which first appeared in the Philadelphia Sunday Despatch (sic), beginning with the issue of May 7th, 1854.3

William Dunlap's History presents an excellent, if sometimes inaccurate, history of the early American theatre. Because of its errors, the work must be employed by the researcher with caution.

Durang's History, written by the American actor and theatrical personality, was based on the journal of his father, John Durang, an actor with the Chestnut Street company. To the extent that the journal, and letters and playbills of the period were used by Charles Durang in the preparation of the articles, the newspaper series appears to be reasonably accurate. Where Durang relied upon his memory alone, however, accuracy must be verified from other sources if the material is to be of value to the modern researcher. Probably the most unfortunate error in the entire work, an error which has been frequently incorporated into the works of theatre historians since Durang, is to be found in Durang's statement that the Chestnut Street Theatre was "a perfect model of the Bath Theatre, in England." So strongly was Durang taken at his word on this point that the statement

3Durang's series has been preserved, in scrapbook form, in several American libraries. The collection used by the present author, in scrapbook form with extra-illustrations included by Thomas Westcott, is the property of the University of Pennsylvania Rare Book Collection.
went unchallenged until 1951. On this issue we shall dwell at some
length in the following chapter.

Following the publication of the works of Dunlap and Durang,
there appeared a number of general histories of the American theatre.
Among the best of these are George O. Seilhamer’s *History of the
American Theatre*,\(^4\) Arthur Hornblow’s *A History of the Theatre in
America*,\(^5\) Arthur Hobson Quinn’s *A History of American Drama*,\(^6\) Glenn
Hughes’ *The American Theatre: 1700 to 1950*,\(^7\) and Bernard Hewitt’s
*Theatre U.S.A.: 1668 to 1957*.\(^8\) In the case of each of these
histories, the authors appear to have employed, without qualification,
the Durang history as a source of information for the history of the
Chestnut Street Theatre.

This survey of the general histories of the American theatre
is deliberately brief. While the bulk of these histories, from
Dunlap’s early work to Hewitt’s most recent treatise, present entirely

\(^4\)George O. Seilhamer, *History of the American Theatre*

\(^5\)Arthur Hornblow, *A History of the Theatre in America*

\(^6\)Arthur Hobson Quinn, *A History of American Drama* (New York:

\(^7\)Glenn Hughes, *The American Theatre: 1700 to 1950* (New York:
Samuel French, 1951).

\(^8\)Bernard Hewitt, *Theatre U.S.A.: 1668 to 1957* (New York:
adequate general surveys of the theatrical activity in America, they
tend to be either too general or too inaccurate for use in the present
study. From these general histories, then, we must turn to specific
studies which deal entirely or in part with the Chestnut Street
Theatre.

The Chestnut Street Theatre Studies. — Of the several books and
dissertation studies which deal directly with the New Theatre in
Philadelphia or with the Philadelphia theatrical scene in general,
James' *Old Drury of Philadelphia*[^9] and Pollock's *The Philadelphia
Theatre in the Eighteenth Century*[^10] stand as pioneers in the field.
Each of these works contains a brief introductory history of the
Philadelphia theatre—histories which, in general, parallel those
outlined by Dunlap, Durang, et al.—but the great scholarly value of
these two works lies in the indexed handlists which make up the bulk
of each work. Culled from newspaper advertisements, from playbills,
and from journals and diaries, these lists provide a nearly complete
record of theatrical productions in Philadelphia from their beginning
through 1800 (Pollock) and from 1810 through 1835 (James). Included
in these handlists are the cast lists and dates of performance of


productions in the several Philadelphia theatres of the periods included by the works. While not complete, these works have been invaluable aids in dating Chestnut Street Theatre productions referred to in Warren's letters and in dating productions through cast lists.

In 1957, James completed the series begun by himself and Pollock in the 1930's. His Cradle of Culture deals with the period of Philadelphia theatrical history from 1800 to 1810. This study provides a far less comprehensive analysis than James' former study. It lacks an index to plays and performers and is characteristically less thorough than his Old Drury of Philadelphia. Nevertheless, it has provided some assistance in the preparation of the present study.

Two unpublished dissertation studies deal specifically with the Chestnut Street Theatre. McKenzie's "Organization, Production and Management at the Chestnut Street Theatre, Philadelphia, from 1791 to 1820" must be regarded as a survey of the Chestnut Street Theatre prompt books, with special emphasis on the sociological structure of the early Philadelphia audiences, and on the styles of acting, types of plays, and costuming practices which were to be found at the New

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Theatre. Its title notwithstanding, this study deals with less than ten years of the theatre's twenty-six year history. McKenzie's conclusions, as far as they go, are generally sound and thoughtful. Although the bibliography of the McKenzie dissertation has been of some value, the majority of McKenzie's work is not germane to the present study, for the present study deals with neither sociological aspects of the Philadelphia theatre nor production elements such as costuming and acting.

A second dissertation study, Calvin Pritner's "William Warren's Management of the Chestnut Street Theatre Company"\textsuperscript{13} is of general interest, but has been of little value to the present study. Pritner's work, as the title suggests, focuses specifically on William Warren as a manager. Only when the theatre buildings, scenery, and machines influence the financial operation of the theatre, does Pritner introduce these aspects of the Chestnut Street operation into his study. The bulk of the Pritner dissertation, concerned primarily with finance, lies outside the scope of the present study of the Chestnut Street Theatre.

**Collateral studies.--**Detailed discussions of various aspects of the Chestnut Street Theatre are included in three studies of the

American theatre from its beginnings through 1830. Of the three, Brooks Barry McNamara's dissertation study of "The Development of the American Playhouse in the Eighteenth Century" has been of most value to the present work. Divided into chronological sections, McNamara's work presents a detailed study of the architectural development of the "playhouse" buildings and the development of the internal arrangement -- box, pit, gallery, stage, and stage equipment -- from 1716 to 1779 and from 1782 through the close of the century.

Quite naturally, McNamara devotes considerable space to a discussion of the Chestnut Street playhouse, the finest theatrical edifice erected in America during the eighteenth century. In discussing the architectural model for the theatre, McNamara disagrees with Durang's statement that the theatre "was a perfect model of the Bath Theatre, in England," and introduces evidence which suggests that perhaps the Limerick Theatre, Limerick, Ireland, served as the model. McNamara's theory will be taken up in the following chapter of the present study.

McNamara's treatment of the stage and stage equipment is in the nature of an overview only, designed to acquaint the reader with the interior arrangement of the eighteenth century American playhouse,

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rather than to provide a detailed analysis of the practices of staging. Perhaps the most useful single section of McNamara's dissertation is to be found in Appendix I. This appendix contains reproductions of fifty drawings and etchings, collated chronologically, which present an excellent iconographic record of the development throughout the eighteenth century of American theatre architecture.

The value of the McNamara study to a student of the American stage cannot be over-emphasized. This study fills a much neglected void in the history of our theatre and is, to my knowledge, the first and only work of its kind.

"All the histories of Philadelphia and of the American theatre base their information about the Chestnut [Street Theatre building] on a misinterpretation of Dr. Mease's Picture of Philadelphia," wrote Abe Wollock in his study of "Benjamin Henry Latrobe's Activities in the American Theatre, 1793-1808." Mease's work, published in 1811, described in detail the Chestnut Street Theatre as it appeared in 1811. As Wollock pointed out, historians subsequent to Mease--Dunlap and Durang among them--took for granted

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that the theatre, when it opened its doors in 1794, existed in essentially the same form as it appeared in 1811.

To the correcting of this misinterpretation, through the examination and careful dating of iconographic materials, Wollock directs a portion of his thesis. Beginning with the building proposal as it appeared on the Chestnut Street Theatre stock certificates issued by Wignell and Reinagle, Wollock takes the reader through an analysis of the building as it actually existed at the time of its opening in 1794 and demonstrates the extent of the work carried out by Latrobe during the period 1801-1804 in order to bring the building to completion.

Finally, consideration must be given to Richard D. Stine's study of "The Philadelphia Theatre, 1682-1829: Its Growth as a Cultural Institution."16 "This dissertation," wrote Stine in his foreword, "is directed towards an understanding of the Philadelphia Theatre (1682-1829) as a cultural institution, not merely towards an understanding of its dramatic or theatrical (in the narrow sense) history."17

Understandably, the orientation of the Stine study is more


17Stine, p. 1.
sociological than theatrical: theatrical practices and tastes are viewed in this work largely in terms of the sociological and economic exigencies which shaped them. This is not to suggest, however, that the Stine study is not of great value to the student of American theatre history. In fact, the study may well have been the first of its kind, for the James and Pollock studies do not approach the theatre from the same viewpoint as Stine's work. Many of the issues brought into focus by the study, concerning both the Chestnut Street Theatre building and theatrical practice at the theatre, undoubtedly prepared the way for subsequent studies with a greater theatrical orientation.

While they present an excellent overview of the Chestnut Street Theatre, the studies of McKenzie, Pritner, McNamara, Wollock, and Stine serve the present study in only a collateral capacity. The essence of the present work is derived from a number of primary sources which, like the Warren Scrapbook, relate to the Chestnut Street Theatre or to theatrical activities which parallel similar activities in Philadelphia during the period 1794-1820.

Survey of Primary American Materials

It would be difficult to rank the primary materials employed in the present study in order of importance to the study. Certainly the Warren Scrapbook, because it provides a remarkable insight into
the life and work of one of the Chestnut Street scene designers and provides a great deal of new materials related to the arrangement of the theatre, has been of great value.

In the face of materials presented in the Warren Scrapbook, much of the primary material used in previous studies of the Chestnut Street Theatre and of American staging practice of the late eighteenth and early nineteenth centuries must be evaluated anew. These materials include the Chestnut Street Theatre prompt books,\textsuperscript{18} William B. Wood's \textit{Account Book},\textsuperscript{19} William Warren's \textit{Journal},\textsuperscript{20} and a substantial body of materials relating to the English theatre of the period under examination.

\textbf{The Chestnut Street Theatre prompt books.}--These twenty-one books make up the most extensive body of primary materials relating directly to the New Theatre in Philadelphia. Many of the plays which are included in this collection were in the Chestnut Street repertory

\textsuperscript{18}A collection of twenty-one acting editions of English plays, twenty of which are marked as prompt scripts. The collection is in the possession of the Library Company of Philadelphia.

\textsuperscript{19}An unpublished collection in nine volumes. These records of Wood reflect the activity of the Chestnut Street company in Philadelphia, Washington, Baltimore, and Alexandria. The collection, owned by the University of Pennsylvania Rare Book Collection, formed the basis of James' \textit{Old Drury of Philadelphia}.

\textsuperscript{20}An unpublished manuscript, in the collection of the Howard University Libraries. The Journal reflects daily entries from 1806 through 1831.
from 1794 to as late as 1834, but it has not been possible to establish a correlation between these prompt books and the initial productions of the plays which they represent. Analysis of the prompter's handwriting in the prompt books yields no clue. Little is known of the Chestnut Street company's prompt staff, but an approximate chronology of the major figures can be established.

Rowson, the first prompter for Wignell and Reinagle, was with the company from 1794 to 1796.\textsuperscript{21}\textsuperscript{21} Rowson was replaced by L'Estrange, who appears to have been with the company until 1810. In the 1810-1811 season, the post was occupied by Charnock and West. Sometime following the departure of these men, the prompt duties were assumed by "Don" Lopez, who remained with the company at least until 1821.\textsuperscript{22} The mere chronology of these prompters is of little assistance in determining their relationship to the Chestnut Street Theatre prompt books, nor would specimens of their handwriting assist, were such specimens available. "It is a most remarkable circumstance," wrote Durang, "that the writing of . . . these prompters was so much alike that their respective chirographies

\textsuperscript{21}There is some confusion on this point. Durang (Vol. I, Chapter XXII, p. 43) gives the date as 1795, saying that Rowson "left after the first season."

\textsuperscript{22}Durang, Vol. I, Chapter LXVII.
could not be distinguished from each other but by the most familiar eye."\textsuperscript{23}

Since the plays represented by the Chestnut Street Theatre prompt books were produced over such a wide and indeterminable range of time, the value of these prompt books to the present study has been extremely limited. These twenty-one scripts, with William Warren's personal copy of 	extit{Romeo and Juliet},\textsuperscript{24} have served three functions to the present study: (1) they have established beyond doubt that wing and border settings were regularly employed in the theatres of the Chestnut Street company; (2) they have revealed some information related to lighting practice, scenery shifting, and furniture placement and employment on the stages of the Chestnut Street theatres; (3) they have enabled the development of a listing, partial at best, of the Chestnut Street Theatre "stock" settings, i.e., settings which remained in general use from one production to the next. Beyond these functions, the prompt books have found little employment in the present study.

\textit{Wood's Account Book and Warren's Journal}.—Each of these documents, in its own way, has been extremely useful to this study of

\textsuperscript{23}Durang, Vol. I, Chapter XXIX, p. 57.

\textsuperscript{24}In the possession of the Folger Shakespeare Library.
the Chestnut Street Theatre. Both the Journal and the Account book, while seldom containing more than journal entries for each business day, were written with sufficient subjectivity to enable the reader to realize the trials and hardships attendant to the operation of America's first major theatre.

Warren's Journal, the more subjective of the two works, has enabled the present writer to establish the identities of many of the theatrical personalities mentioned in the Warren Letters, and to learn several important facts related to theatrical practice in the theatres of Washington, Baltimore, and Philadelphia. Moreover, comparison of details recorded in the Journal with references in the Letters has permitted accurate dating of many of the Warren family letters which appear in the Scrapbook.

Wood's Account Book, thoroughly examined by Reese D. James in his Old Drury of Philadelphia, yields two significant items only mentioned in passing by James: the Washington Inventory, entered in Wood's Account Book as "Inventory of Scenery at Washington, rec'd from I. Caldwell at Alexandria 27 July, 1821,"\textsuperscript{25} and a second inventory, entered simply as "Inventory of the Washington Theatre, November, 1824."\textsuperscript{26} While the dates of these inventories place them outside of

\textsuperscript{25} Account Book, Vol. II.

\textsuperscript{26} Account Book, Vol. II.
the limits of this study, they are, nevertheless, of great interest to
the present work, for they not only indicate the kinds of scenery
employed by American theatres of the period immediately contiguous to
our period of investigation, but also indicate the scenic requirements
of the Chestnut Street company.

Wood's Account Book does not explicate these inventory
entries, but Warren's Journal reveals their history and significance.
Warren's Journal entry for Wednesday, April 19, 1820, tells of the
burning of the Washington theatre "at the hands of some vile
incendiary." Following closely on the heels of the disastrous
Chestnut Street Theatre fire (April 2, 1820), the Washington fire
brought about the loss of "another stock of scenery, lamps &c.,
sufficiently useful to carry on our business."27

The original site of the Washington theatre being considered
unsatisfactory, a search was commenced for a suitable location on
which to rebuild. On Saturday, September 2, 1820, "the lot was
purchased as a site for the New Theatre on the Louisiana Avenue
[Washington, D.C.]." It was "60' by 111'."28 With a new site
selected, and construction on the new building begun, it remained only
to supply a new stock of scenery. Evidently it was considered more

27 Warren Journal, September 2, 1820.
28 Warren Journal, September 2, 1820.
economical to purchase existing stock scenery than to construct new scenes, for on September 3, 1820, Warren travelled to Alexandria "in company with Mr. McCleod and Tomlinson." 29 There, according to Warren "met Entwisle [of the Alexandria theatre]. Shown the scenery by him, which was the object of my visit, as we are treating with Caldwell for the purchase of the same. Think it well worth $500, the price he asks." 30

Warren purchased the scenery and had it transported, probably by wagon, from Alexandria to the new theatre in Washington. In November, 1824, an inventory of the Washington theatre was taken. Included in this inventory are virtually all of the scenic pieces taken from Alexandria, in addition to a large number of pieces added in Washington. It is of interest to note, however, that the major scenes remain unchanged; only property and set pieces have been added during the four year period.

These two inventories, which are considered in detail in Chapter IV of the present study, provide the most comprehensive list of early nineteenth century American scenic pieces available to the scholar of American theatre history. They are presented in their entirety in Appendix A. In the same manner that the 1743 Covent

29 Warren Journal, September 3, 1820.

30 Warren Journal, September 3, 1820.
Garden inventory provides an insight into the theatrical practices of the English Restoration theatre, the Alexandria and Washington inventories provide an insight into the staging practice of the late eighteenth and early nineteenth century American theatre.

Newspaper sources.--Little need be said of these sources, a complete list of which appears in the bibliography of this study. Newspapers during the period 1794 through 1820 have been consulted for certain specific details, but in general, newspaper accounts from the period provide little more than cast lists and performance dates of Chestnut Street Theatre productions.

Survey of Primary English Materials

For purposes of this introduction, it is necessary to discuss English materials used in the study only in terms of classes of material, since specific source materials are discussed in detail as they are employed in each chapter. These classes consist of the following:

1. Architectural Materials.--This class includes treatises, drawings, and photographs. Included in this class are such works as George Saunders' *A Treatise on Theatres*, 31 James Lewis' *Original Designs in Architecture*, 32 William and


James Pain's British Palladio, 33 and Asher Benjamin's The Country Builder's Assistant. 34e Architectural drawings from the British Museum and the Victoria and Albert Museum have been especially valuable, as have the plans and drawings which appear in John Foulston's Public Buildings Erected in the West of England. 35

2. Inventories. --While numerous listings of scenery and properties employed on the English stage of the period have been consulted, perhaps the most valuable single inventory has been the inventory supplied the author by Christie's Auction House, London. This inventory contains the entire account of scenery and machinery sold at auction in 1792, from Lord Barrymore's private theatre, Wargrave-on-Thames. Numerous accounts of the Philadelphia stage indicate that the furniture, costumes, and some of the scenery from Barrymore's theatre were brought to America, for employment in the Chestnut Street Theatre.

3. Paintings and Designs. --In an attempt to develop the characteristics of the stage picture (in the narrow sense) of the Chestnut Street Theatre, hundreds of nontheatrical paintings and scene designs of English artists have been examined. Especially valuable have been the drawings of John DeVoto, de Loutherbourg, John Inigo Richards, John Henderson Grieve, and William Capon.

While not "primary" in the narrowest sense of the word, one other English source must be included in this survey. This source is the excellent handlist of eighteenth century scene painters compiled

33 William and James Pain, Pain's British Palladio (London: 1790).


35 John Foulston, Public Buildings Erected in the West of England (Bath: 1838).
by Sybil Rosenfeld and Edward Croft-Murray. It is an invaluable tool to the student of eighteenth century production activity in England and Ireland. "A good deal of the material has been culled from playbills, London newspaper advertisements and opera libretti. Sources other than these have been given." In addition to discussing the work of each of the eighteenth century painters, the Rosenfeld-Croft-Murray checklist itemizes and gives the location (when known) of the extant works of each of the scene designers cited in the study. This much needed checklist has been of continuing aid to the present study of the Chestnut Street Theatre.

Focus and Limitations of the Study

This study of the Chestnut Street Theatre focuses on the production activities of the Chestnut Street Theatre company from 1794 through 1820. Generally, the study examines the activities of the company as they relate to general American practice. To the extent that they are germane to this study, discussions and examples of production practices and facilities of several American theatres

36 "A Checklist of Scene Painters Working in Great Britain and Ireland in the 18th Century," appearing in Theatre Notebook, a publication of The Society for Theatre Research. The Checklist is begun in the issue for Autumn, 1964 (Vol. XIX, No. 1) and continues through the issue for Autumn, 1965 (Vol. XX, No. 1), with a supplementary listing in the issue for Winter, 1964/66 (Vol. XX, No. 2).

are introduced, including those of the Chestnut Street company's
summer facilities at Baltimore, Washington, and Alexandria.

Specifically, the study focuses on the theatre building,
stage, stage house, and production facilities of the 1794 Chestnut
Street Theatre. Within the context of the discussion of these
facilities is placed the work of the machinists and designers who were
employed by Wignell and Reinagle, Warren and Wood. Special emphasis
is placed on the work of Henry Warren.

While it might well be argued that costuming and costume
design are an integral part of any production, these activities lie
outside of the area of competence of the present author and have not
been included in the present study. Management, organization, and
sociological impact of the Chestnut Street Theatre company, which
have been admirably examined by McKenzie, Pritner, and Stine,
respectively, have also not been examined in the present study.

Procedure and Methodology

In concluding these introductory remarks, it is probably well
to discuss briefly the procedures and methodology employed in this
examination of the Chestnut Street Theatre. Two procedures have been
employed to support the major thesis of this study. Where direct
evidence of corresponding English and American practices can be
demonstrated, similarity of practice has been established through
comparison, using both iconographic and textual materials.

Where direct evidence does not exist or is not available, similarity of practice is established through analogy. For example, let us consider the machinery employed to raise and lower the green baize front curtain in the Chestnut Street company's theatres. While there is ample evidence concerning the use of the green baize curtain, there is no indication of how this device was operated in the American theatre. Its use in the American theatre to reveal the stage at the beginning of a play and to hide the stage at the conclusion of a play is entirely consistent with English usage, however, as is the position of the curtain in the theatre—just upstage of the proscenium arch. Since the employment and location of the green baize curtain in the American and English theatres is entirely consistent, we may infer that the means of raising and lowering this curtain was also consistent. We have no evidence of how this was accomplished in the American theatres, but possess considerable evidence to indicate how the English theatre dealt with the problem. Therefore, by analogy, we may posit the manner in which the green baize of the American theatres was raised and lowered.

In using the technique of analogous structures, four considerations have been given to sources:

1. Weight of evidence. Where possible, a number of sources have been considered and compared before the analogy is accepted as valid.
2. **Reliability of source.**--The competence and credibility of sources employed in the analogy have been carefully verified.

3. **Comparative evaluation of source to known practice.**--Before offering evidence for use in an analogous situation, the evidence has been carefully examined in the light of contemporary and standard practice, in order to ascertain the degree to which the source is representative.

4. **Comparative evaluation of textual sources with iconographic evidence.**--Finally, the question has been asked of each piece of evidence: can we find pictorial materials which illustrate textual descriptions of a piece of machinery, scenery, etc.? Thus, while there are several textual references in primary source materials to the use of the green baize curtain, an effort has been made to find pictorial materials which show the curtain in use.

We may readily apply this criteria to the example of the green baize curtain. Newspaper accounts, journal and memoir entries, letters, and receipts all indicate that the green baize curtain was employed regularly in the American theatres of the late eighteenth and early nineteenth century. The weight of evidence--the sheer number of references to the green baize curtain--and the reliability of the several sources, made up of newspaper men, theatre patrons, actors, managers, and designers, lends credibility to the evidence. Moreover, the employment of a green baize curtain is entirely consistent with theatrical practice of the eighteenth century. We establish, then, that the use of the curtain in America is a fact, but are no closer to answering the question of how this curtain operated. Turning to England, we discover that the use of the green baize curtain is
described in English sources in precisely the same manner as it is described in American sources. Moreover, there exists in the English sources pictorial examples of the green baize curtain in operation and illustrations which actually show the machinery which operated the curtain. Descriptions of this machinery are compared with illustrations of the machinery, and the conclusion is reached that the descriptions and illustrations are of one and the same machine. (Here we have applied criterion No. 1.) Having validated the evidence from both sides of the Atlantic, we are now in a position to infer that, based on the similarity of employment and the similarity of positioning in the theatre building, the rigging for the green baize curtain in America closely approximated the rigging employed in English theatres of the same period.

In the following chapters we shall examine the facade, auditorium, and stage of the Chestnut Street Theatre (1794-1820). We shall also consider the scenic artists who designed for the stage of the Chestnut Street Theatre, and examine the works which they created. Where possible we shall attempt to correct historical misconceptions which have shrouded the Chestnut Street Theatre since its destruction in 1820. At all times, we shall address our inquiry to the thesis that, because of kinds of plays produced in it, because
of the traditions upon which it was founded, and because of the building and stage facilities which housed its productions, the Chestnut Street Theatre was shaped and guided by English staging tradition.
CHAPTER II

THE CHESTNUT STREET THEATRE FACADE

In a discussion of the Chestnut Street Theatre and the productions which it housed for nearly three decades, it seems only fitting to begin with an examination of the building itself, to consider its architectural characteristics and its relationship in general to the architecture of the period in which it was built. The luxurious theatre that Thomas Wignell and Alexander Reinagle officially opened to the citizens of Philadelphia on February 17, 1794, was "in style of completeness" the "twin of Drury Lane."¹

In early 1791, when the designs for the Chestnut Street Theatre were prepared, only two theatres of consequence were to be found in Philadelphia. The Southwark, housing the Hallam and Henry Old American Company, was located nearly a mile from the center of the rapidly expanding city and, at best, was marginally suitable for productions. According to McKenzie: "it was small and uncomfortable; ¹

¹Durang, History... , Vol. I, Chap. XII, p. 23.
so hot in the summer that wind sails had to be erected on its roof, and fire hoses played upon it to keep it cool. ²

On the north side of the city, the so-called New American Company was playing in the Northern Liberty (or Liberties) Theatre, having opened on April 8, 1791. This company, composed of the principal actors Mr. and Mrs. Kenna, Miss Kenna, Mr. Kelly, Mr. and Mrs. Kedey, and J. Kennas, is perhaps more familiarly known to theatre historians as the "K" company. Like the Southwark, the Northern Liberty Theatre was unsatisfactory for both audience and acting company, "a small wooden theatre... on the wharf up at Noble Street" ³ in Front Street.

Early in 1791, Thomas Wignell broke with Hallam and John Henry. The Old American Company had for many months been torn by internal bickering. Wignell was dissatisfied in general with the company, and was especially unhappy with "the niggardly treatment by the managers" ⁴ which he received. Determined to bring to Philadelphia a first-rate company and fully qualified through London training and experience to develop and manage a theatrical company, Wignell

enlisted as a partner Alexander Reinagle. Reinagle, according to
Drummond, was "an English musician and composer, friend and
contemporary of Bach...teacher on the pianoforte, harpsichord and
violin." The two managers addressed to the citizens of Philadelphia
a proposal stating "...that its public places of amusement should be
put on a larger and more suitable scale than they yet have ever
attained to..." and solicited the public to share in the expense
of such a venture.

Under the terms of their proposal, sixty shares of stock
were to be sold at $300 each, and a season ticket to the theatre was
to be given each shareholder. Six percent interest per annum was to
be paid, and ten shares were to be redeemed by the managers annually.
Shares were purchased quickly by Philadelphia society's leading
citizens. On June 22, 1792, forty additional shares were issued,
bringing the building capital up to $30,000.

However, $30,000 was not enough to complete and equip the new
theatre. Although the interior of the building and the stage
department were adequately appointed, the exterior of the building was

5 Robert Rutherford Drummond, Early German Music in Philadelphia

6 Proposal by Messieurs Wignell and Reinagle for Erecting a New
Theatre in Philadelphia. The original is owned by the Pennsylvania
Historical Society, Philadelphia.
not completed according to the "architect's" plan until 1805, when
the work was finished by Benjamin Henry Latrobe. 7

Like many other public and private buildings of this period,
both in England and America, the Chestnut Street Theatre was not
designed by a professional architect. Its designs were supplied by a
scene painter, and the building was probably executed by bricklayers,
masons, and joiners working under the supervision of some unknown
master builder. According to Durang and to other sources, the theatre
was the "architectural" work of "Mr. Richards, a celebrated artist at
London, and a brother-in-law to Mr. Wignell, [who] furnished a plan
for the building, which was a perfect model of the Bath Theatre, in
England." 8

Although Richards was a talented artist, a long-time designer
at Covent Garden Theatre, and secretary of the Royal Academy and was
responsible for the 1784 alterations of Covent Garden Theatre, 9 he

7 The term "architect" must be used advisedly. The latter
part of the present chapter deals with a discussion of 18th Century
architects and with John Inigo Richards, the "architect" of the
Chestnut Street Theatre.

8 Durang, Vol. I, Chap. XIX, p. 34. Durang adds "I often saw
it [that is, the model of the theatre] lying in a property-room over
the dome [of the Chestnut Street Theatre]."

9 Saunders, p. 83.
was certainly not an architect, either by training or inclination. ¹⁰

All of the sources which mention an "architect" or designer for the proposed theatre in Chestnut Street, however, attribute the design to Richards, and it must be presumed, in the absence of evidence to the contrary, that these sources are correct.

The Textual Accounts. — Several accounts of the actual theatre building exist. The earliest of these is that of Moreau de Saint- Méry, a French traveler who visited the Chestnut Street Theatre in 1794, shortly after it opened. Of the theatre's exterior Saint- Méry wrote:

The new theatre on the northwest corner of Chestnut and Fourth Streets has nothing in its brick facade to suggest the public building. The entrance is mean and does not differ from that of an ordinary house. ¹¹

Dr. Mease, who chronicled Philadelphia in 1811, and again in 1831, gave a somewhat more expansive description of the theatre's facade:

The theatre in Chestnut, near Sixth street [sic], was founded in the year 1791; and enlarged and improved, as it now [that is, in 1811] stands, in 1805. It presents a handsome front on Chestnut Street, of ninety feet, including two wings, of fifteen feet each. The center building is ornamented with two spirited and well executed figures, of tragedy and


¹¹Hewitt, Theatre U.S.A., p. 39. Saint- Méry is in error on one point, however. The new theatre was located at the corner of Sixth, not Fourth, and Chestnut.
comedy (by Rush), on each side of a great Venetian
window, over which, in two circular tablets, are
emblematical insignia. The top of this center
building is crowned by a pediment. The wings,
opened by large windows, recede a little from front,
above, but project below, twelve feet, to the line of
the street, faced with marble; these pavilions are
decorated with emblematic figures, in tablets, and
connected together by a colonnade of ten fancy
Corinthian columns. 12

Dunlap's account, written in 1834, gives essentially the same
details as Durang was to provide twenty years later:

The plan of this building was furnished by
Mr. Richards, who was Wignell's brother-in-law, and
secretary to the Royal Academy. The model was burnt
when the house was consumed [by fire, in 1830]. 13

The Durang account is essentially a quotation of Dr. Mease's
account, with one notable exception: it is Durang, and Durang
alone, who calls the Chestnut Street Theatre "a perfect model of the
Bath Theatre, in England."

The balance of the present chapter deals with a consideration
of the several implications of Durang's statement, considering three
possible sources of the Chestnut Street Theatre proposal. At the
conclusion of this examination, a new source is posited by the present
author.

The Iconographic Materials.--An examination of the iconography...


associated with the Chestnut Street Theatre must begin this quest for
the theatre's origins. When considered with textual references to the
theatre, the iconographic material provides an insight into the
differences which existed between the proposal and the actual
structure in its several stages of development.

Figure 1, a drawing for the proposed building, is identified
by Westcott as the "original plan of the architect." It has
subsequently been identified by McCamara as the "view of the proposed
Chestnut Street Theatre...which appeared at the head of early stock
certificates issued by Wignall and Reinagle." Since stock
certificates were issued twice, this drawing could date from as early
as 1791, and not later than June, 1792.

A comparison of the stock certificate proposal with the
Saint-Méry description reveals that the building which Saint-Méry
described bore little resemblance to the proposed building. The
stock certificate building presents a structure which is certainly
more ornate than an "ordinary house." The entrance, which closely
resembles that of the Adam brothers' facade for Drury Lane (Fig. 2),

15 McCamara, Development of the American Playhouse, p. 311.

16 Robert and James Adam, 1775. From a print in the Harvard
Theatre Collection. O.S.U.T.C. F.144/3.
Figure 1. Chestnut Street Theatre Architectural Proposal. Durang's History of the Philadelphia Stage, ca. 1854. University of Pennsylvania Rare Book Collection.
Figure 2. Facade of Drury Lane, 1775.
Designed by Robert and James Adam. Harvard Theatre Collection. OSUTC Film No. 14434.
can hardly be described as "mean," nor does the rusticated lower story of the proposed building suggest the "brick facade" which Saint-Méry observed.

The building which Saint-Méry saw on his visit to Philadelphia was drawn by William Birch, a Philadelphia painter, in 1800 (Fig. 3).\textsuperscript{17} This drawing shows a structure somewhat like the proposed building, with the major exception that the rusticated basement story and arcade are not in evidence. There is, rather, a wooden lean-to-like structure, certainly "mean" enough to fulfill Saint-Méry's description, which projects over the entrances of the theatre. The side "wings" of the building, which Naege describes in 1811, are not yet in evidence. The pediment and the central portion of the tympanum are carefully drawn, and we see decorating the tympanum not the eagle device of the Richards proposal, but rather a fan-shaped lunette. Little other detail can be determined in the drawing.

In 1801, Benjamin Henry Latrobe, a well established Philadelphia architect (in the fullest sense of the word) was selected by the shareholders to complete the Chestnut Street Theatre.\textsuperscript{18} The alterations were extensive; a second drawing of the theatre, done by

\textsuperscript{17}In the possession of the Harvard Theatre Collection.

\textsuperscript{18}For fully developed discussion of the life of Latrobe, and of the contributions which he made to the Chestnut Street Theatre, see Abe Wollock's Benjamin Henry Latrobe's Activities in The American Theatre (1797-1808).
Figure 3. Looking West on Chestnut Street toward the Theatre.
Birch in 1804 (Fig. 4) indicates the extent of the Latrobe additions to the original building. The Birch view (Fig. 4) agrees, in the main, with the Haase description of 1811. Comparing the 1804 view to that done in 1800, we see that the side wings have now been added, although the Rush figures of tragedy and comedy, the "two circular tablets" with their "emblematical insignia," and the emblematic figures, in tablets, which graced the pavilions in 1811 have not yet been installed.

With these three pieces of evidence in hand—the Chestnut Street Theatre proposal, the Birch drawing of the theatre as it appeared in 1800, and the drawing by the same artist showing the theatre as it appeared in 1804—the development of the building, from its inception as a proposal by Richards to its completion in 1804 by Latrobe, can readily be traced. Limited by a shortage of funds which was to plague the theatre throughout its entire history, Wignell and Reinagle were forced to compromise in executing the proposed design for the new theatre. Forced to limit construction to the central portion of the proposed building, Wignell built an adequate but hardly commodious theatre. Measuring sixty by one hundred thirty-four feet, the building lacked many audience facilities. The most often-noted shortcoming in the new theatre was the lack of a coffee room, a deficiency which was corrected with the addition of the side wings.
Forced to economize, Wignell deleted virtually all ornamentation from the building, ornamentation which was subsequently added by Latrobe. The entrance to the theatre, which in the original proposal for the theatre (Fig. 1) consisted of a rather massive, rusticated colonnade of arches, was for the first six years of the building's existence only a rough wooden lean-to. The entrance was eventually finished in a much lighter motif than that of the original proposal with "a colonnade of ten fancy Corinthian columns" (see Fig. 4) reflecting, perhaps, a tendency away from the "Augustan" influence of the middle Georgian period, toward the lighter style of the Regency.

In considering the Chestnut Street Theatre building and the relationship which the actual structure bore to the Richards proposal, one possibility cannot be overlooked. Conceivably, the drawing which appeared at the head of the Wignell and Reinegle stock certificates was never intended to bear any resemblance to the building which was actually built. It could have been placed on the certificates to enhance the appearance of the documents and to prompt the sale of shares.

Such a suggestion, while possible, is not reasonable. The managers asked for initial support from the Philadelphia citizenry to the extent of $18,000 for the new theatre, and later they were to ask for an additional $12,000. To obtain such support by deceit or fraud
would be to jeopardize all further dealings with the Philadelphians. Furthermore, it is highly unlikely that such a fraud would go unchallenged, for the disparity between the proposal and the actuality would have been immediately noticeable. It must be assumed, therefore, that the stock certificate drawing represented the building which Wignell, in 1791, intended to construct. That it was never erected in this form was a result of financial problems, rather than malice.

The Bath Theatre, England: A Possible Source. --A second possible source is suggested by Durang, who called the theatre "a perfect model of the Bath Theatre, in England." Might Richards' model for the stock certificate drawing have been the Bath Theatre, as Durang states? The answer to this question lies in an examination of the descriptions and iconographic evidence related to the theatre at Bath and a comparison of these materials with those of the Chestnut Street Theatre.

The Bath Theatre, or the Orchard Street Theatre, as it was known in the eighteenth century, was erected under the auspices of John Palmer—the name is sometimes given as Powell—"an enterprising and well-to-do citizen, a brewer and tallow-chandler by trade, jointly
with nine other inhabitants"¹⁹ of Bath. The plans for the building were begun by Hippsley and Watts in 1747.²⁰

The Theatre (Figs. 5 and 6) "to be situated near the Grand Parade, in the City of Bath,"²¹ was planned to be "sixty feet long and forty feet broad in the clear; it was to front westward to Orchard street, and the front was to have consisted of a rustic basement, supporting the Doric order."²²

A drawing for Woodfall's Theatric Tourist (Fig. 7) shows the Orchard Street Theatre as it appeared in 1804.²³ Penley indicates several changes to the interior of the building during the fifty years of its use as a theatre, but only one of the two recorded changes for the exterior involved the facade. The door at the left center of Woodfall's picture was added to the building in an effort to alleviate


²¹Penley, p. 25. Quoted from the Proposals for Building by Subscription, A Regular, Commodious Theatre...in the city of Bath.

²²Penley, p. 24. As quoted from Wood's An Essay Towards a Description of Bath. First appearing in 1742 in two parts, this document was published in Bath, by Thomas Boddeley. A second edition, published in London in 1749 by James Bettenham, is the volume from which Penley extracts Wood's comments and observations.

²³The identification is by Mowbray Green, p. 214.
Figure 5. Map of the City of Bath, 1750-51. Green's The Eighteenth Century Architecture of Bath, p. 136. Courtesy of George Gregory, Publisher.
Figure 6. Map of the City of Bath,
1776. Green's The Eighteenth Century
Architecture of Bath, p. 161. Courtesy of
George Gregory, Publisher.
Figure 7. View of the Bath Theatre, Orchard Street, drawn by Woodfall. Green's The Eighteenth Century Architecture of Bath, Plate CXXXII. Courtesy of George Gregory, Publisher.
traffic congestion in front of the small structure, about the year 1800. In 1774 or 1775, the "theatre was enlarged by extending the building at the back," 2h or east end, but no recorded change was made to the front of the building at that time. In establishing the authenticity of the Woodfall drawing (1804), it seems evident that with the exception of the added door, the facade in the Woodfall drawing matches the original facade (1750).

A description of the theatre by Moreay A. Green and a photograph of the building as it appeared about 1945 lend further credence to the authenticity of the Woodfall drawing of the Orchard Street Theatre and the Wood description of the building. Writing in 1903, Green says of the Orchard Street Theatre:

Time has dealt gently with Orchard Street, and in this twentieth Century one can recognise on every side many of the characteristics of the eighteenth. As a matter of fact, the facade of the once famous Bath Theatre.... is pretty much the same today as it was when sketched for Woodfall's Theatric Tourist in 1804....the condition of the upper windows in 1903 is pretty much what it was in 1803. 25

Figure 8, taken by the British National Buildings Record, shows the building as it stood later in the twentieth century. It is unmistakably the building which Woodfall drew, although seen from the south looking north along Orchard Street, while the Woodfall

2hPenley, p. 34.

25Green, p. 214.
Figure 8. View of the Bath Theatre, Orchard Street, ca. 1945. Southern's *The Georgian Playhouse*, Plate 14.
drawing represents the building as seen from the north looking south and east. The pedimented door at the south end of the building has been added in the interim between Woodfall's recording of the building and the photographic recording, and the doors to the Pit, Gallery, and Boxes have been altered to form windows. But the basic facade remains unchanged.

A comparison of the proposed Chestnut Street Theatre building with the Orchard Street Theatre leads to the inescapable conclusion that the theatre in Bath could not possibly have served as Richards' source of inspiration for the Philadelphia theatre stock certificate drawing. Perforce, Durang must be incorrect in asserting that the Chestnut Street Building was "a perfect model of the Bath Theatre, in England."

Examination of the Woodfall drawing indicates that the building had a plain facade, devoid of architectural embellishment. Wood tells us that the building was to have a "rustic" basement. Care must be taken not to confuse "rustic" with "rusticated."

"Rustic" is used in the sense of rough or undressed, while "rusticated" refers to "stone walling in which the joints between the blocks are emphasized by deep grooves or channels with the idea of imparting a feeling of strength or massiveness."26 As Wood indicates,

the basement story of the Orchard Street Theatre is rustic, quite unlike the basement story of the Chestnut Street proposal, which is rusticated.

"... a rustic basement, supporting the Doric order," wrote Wood of the Orchard Street Theatre. (The italics are mine.) But an examination of the Woodfall drawing reveals no Doric order. In fact, the upper story of the building is devoid of columns and is broken only by a double row of Georgian sashes, characterized by their narrow glazing bars. Is it possible that the theatre, as originally designed, was to have had a row of Doric columns gracing its facade? Probably not, for it would be difficult to resolve columns with the arrangement of windows we see in the Woodfall drawing. It is more reasonable to suppose that by "Doric" Wood meant to suggest unpolished, rough, or rustic, words which are all cognate with Doric.

Only one disparity exists between the Wood description and the Woodfall drawing of the Bath Theatre, a disparity made even more evident by the National Building Record photograph (Fig. 8). According to Wood, the theatre was to have been "sixty feet long and forty feet broad in the clear." It would be reasonable to assume that these dimensions referred to depth and width, respectively. But both the Woodfall drawing and the later photograph seem to suggest a greater width to the building. However, Green, one of the foremost authorities on Bath, cites the Wood measurements without correction,
and it must be assumed, in the absence of evidence to the contrary, that they are accurate.

Unlike the theatre at Bath, the proposal for the Chestnut Street Theatre (Fig. 1) indicates a rusticated rather than a rustic basement story. This basement story supports six Ionic pilasters, which in turn support a pediment. The tympanum of this pediment is decorated with an eagle. The center of the upper story is pierced by a large Venetian window, with Ionic columns, and this Venetian window is flanked by smaller windows. Moreover, the Chestnut Street proposal calls for "wings" or side structures on either side of main building, in the Palladian tradition.27

The dimensions of the Chestnut Street Theatre proposal are not known. Mease, writing in 1811, describes the actual building as being "ninety feet [in width], including two wings of fifteen feet

27According to Osbourne's definition, the Palladian is characterized by "...strictly formal three-part grouping... comprising the main central block with portico and two often widely spaced wings connected to it by single-storey passages, screens or colonnades: the use of the large order (usually that of the portico) extending throughout the two principal storeys of the facade of the central block, using the ground-floor as a pedestal: small orders supporting arches in the spaces between larger columns carry an entablature, used as decoration round a door or window." (Osbourne, p. 69.) These features are, of course, characteristic, and frequently do not all appear in the sequences Osbourne describes. Departures and modifications from the "pure" Palladian abound in the Chestnut Street Theatre stock certificate proposal, but the concept of the main central block with wings is quite evident.
each... the extreme depth of the theatre is one hundred and thirty-four feet.\textsuperscript{28} The dimensions of the second Chestnut Street Theatre, built on the same location as the first theatre, suggest that the original building did not completely fill the lot on which it stood. The second theatre, according to the architect's description, was ninety two feet wide and one hundred fifty feet deep.\textsuperscript{29}

In summation, four points of difference exist between the Chestnut Street Theatre proposal and the Orchard Street Theatre in Bath:

1. The basement story of the Chestnut Street Theatre proposal (Fig. 1) is rusticated, while the basement story of the Orchard Street Theatre (Figs. 7 & 8) is rough, undressed, or rustic.

2. The larger order extending through the two principal stories in the Chestnut Street proposal is Ionic; these stories are pierced by a large, central Venetian window. The principal stories of the Orchard Street Theatre are Doric, in the sense of plain or rustic. Their only ornamentation consists of plain Georgian windows.

3. The principal stories in the Chestnut Street Theatre proposal are capped by a pediment, whose tympanum is decorated with an eagle; there is no pediment on the Orchard Street Theatre building.

\textsuperscript{28}Halse, p. 330.

\textsuperscript{29}Built by William Strickland, painter and architect, the second theatre was opened in 1822, replacing the original theatre which was destroyed by fire in 1820. The architect's description of the new building appeared on the reverse of the opening night program.
4. The Chestnut Street Theatre proposal may have called for a building ninety feet in width by one hundred thirty-four feet in length. The building, as actually constructed, was sixty feet in width by one hundred thirty-four feet in length. The Orchard Street Theatre, as originally constructed, was forty feet wide by sixty feet in length. While the length of the building was extended in 1774 or 1775, comparisons of the building as it appeared on maps of Bath in 1750 and again in 1775 indicate that the extension was rather limited.

On the strength of a comparison of the descriptions and iconographic materials pertaining to these two theatres, it must be concluded that Durang was in error when he wrote that the Chestnut Street was "a perfect model of the Bath Theatre, in England," and that Richards' inspiration must have been derived from some other source.

James Lewis' Limerick Theatre Proposal: A Possible Source.

--To my knowledge, only one scholar has suggested an alternative source for Richards' drawing. Stine, in his study of the theatre as a sociological force in Philadelphia, notes a similarity between the Chestnut Street Theatre and James Lewis' Limerick Theatre. McNamara, in his study of the American theatre building, follows Stine's lead and proposes that the Limerick Theatre may well have been Richards' source for the Chestnut Street Theatre building:

Whoever the designer of Philadelphia's new playhouse on Chestnut Street, it is almost certain that he had borrowed from the theatre at Limerick, England; designed by James Lewis and constructed in 1789. Both theatres present a central Palladian motif of arches supported by minor columns and framed between larger
pillasters, niches which contain statuary, wreathed emblematical devices, and a lower floor decorated in the popular rustic manner which employed roughly hewn stonework as a contrast to smoother surfaces used elsewhere. The derivative nature of the stock certificate engraving is too clear to be doubted; and it is equally clear that the building which was actually constructed on Chestnut Street was a simplified version of the stock certificate view. 30

On the face of it, the Stine-McNamara alternative seems appealing. Figures 1 and 9 present the elevation of the Chestnut Street proposal and the elevation of the Limerick Theatre, for purposes of comparison. As McNamara suggests, several features of the buildings are similar:

1. Both theatres present a rusticated basement story.

2. Both theatres present "niches with statuary," and present a wreath and emblematic device, located above each niche.

3. The frieze of both buildings is decorated with small emblematic tablets or emblematic devices over each of the central pilasters in the large order.

Similarities in the two theatres notwithstanding, it is virtually a certainty that the stock certificate proposal was not derived from the Limerick Theatre, as McNamara suggests. McNamara cites no authority for his remarkable statement that the Limerick Theatre was built in Limerick, England, in 1789. In fact, the Limerick theatre was never constructed. The plans were drawn,

30 McNamara, pp. 64-65.
Figure 9. Facade for a Proposed Theatre at Limerick, Ireland. Lewis' Original Drawings in Architecture, Plate XXIII. Reproduced by Permission of The Huntington Library, San Marino, California. OSUTC Film No. 511.
according to Southern's dating, in 1778, and were published in 1797; they were for Limerick, Ireland.

Colvin, in his Biographical Dictionary, describes Lewis' book, *Original Designs in Architecture, consisting of Plans, &c., for Villas, Mansions, Town Houses, &c., and a new Design for a Theatre.* The work was published in two volumes. The first volume was published in 1779-80; in 1797, a second volume was published, which incorporated the first volume. The 1797 publication consisted of two "books," bound in one volume. The first of these "books" was, in fact, nothing more than a "second edition, with corrections," of the 1779-80 publication. From Lewis' treatise, Colvin prepared a "list of his (Lewis') executed works," as well as a list of Lewis' unexecuted studies. The listing of unexecuted studies includes "a Market House and Theatre at Limerick in Ireland."

John Inigo Richards supplied the proposal for the Chestnut Street Theatre in 1791 or possibly in 1792. Since the designs for the

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31 Richard Southern, *The Georgian Playhouse* (London: Pleiades Books, 1948) p. 34, and Fig. 5.

32 Colvin, p. 366.

33 Library of Congress. "Printed for the author by Cooper and Graham, 1797." Volume two carries the title: "Original designs in Architecture, consisting of Plans, elevations and sections of various public and private buildings: executed or proposed to be executed in different parts of England and Ireland." (The italics are mine.)
Limerick theatre in Ireland were not executed until 1788, and were not published until 1797, Richards could not have had access to these plans through public channels. Both Richards and Lewis were members of the Royal Academy, however, and both were active in London during the period 1788 to 1792. It must be recognized as a possibility, though remote, that Lewis might have shown the plans of the Limerick proposal to Richards, who in turn could have borrowed from them.

Such a likelihood loses much of it appeal, however, when the dissimilarities between the Limerick plans and the Chestnut Street proposal are considered. A comparison of Figs. 1 and 9 clarifies the extent of these dissimilarities:

1. Typically in the Georgian period, theatres had three entrances: the Pit, Box, and Gallery entrances. Such an arrangement appears in the Chestnut Street proposal, but only two entrances are found in the Limerick theatre drawing.

2. In the Chestnut Street proposal, the basement story facade is formed by an arcade screen of semicircular arches. The entrance doors to the theatre, located in the wall behind the arches, are framed by rusticated architraves, a device utilized in order to carry the style of the arcade screen back to the inner wall. In the Limerick theatre drawing, the entrance doors are let directly into the rusticated facade and open directly into a lobby arrangement.

3. The Chestnut Street Theatre proposal presents six pilasters in the principal stories of the building; the Limerick theatre drawing presents four pilasters in the principal stories.
4. The pilasters of the Chestnut Street proposal appear to be of the Ionic order, while those of the Limerick theatre drawing appear to be of the Renaissance Corinthian or Renaissance Ionic order.

5. The Chestnut Street Theatre drawing indicates a pediment and decorated tympanum. In the Limerick theatre drawing, the cornice of the roof is finished with a balustrade.

6. The central window of the Chestnut Street proposal is open between the columns of the Venetian window. The columns in the Venetian window of the Limerick theatre drawing support a cornice and frieze which cross the window slightly above center.

With McNamara's opinion that the "derivative nature of the stock certificate engraving is too clear to doubt" I concur, but I cannot agree that the design for the proposal was influenced by the Limerick theatre drawing. Much of the architecture of the last quarter of the eighteenth century was derivative, and to understand the nature of the architectural climate in England and America during this period is to understand the impact of the early Georgian period and the Palladian revival on the architects and would-be architects during the declining years of the Georgian period.

Architectural: An Emerging Profession.--Architecture emerged as a profession in England during the Georgian period. More builders could no longer satisfy a rapidly developing demand among the noble and the affluent classes for a classically balanced and ordered scheme of building design. This desire for balance and order, originating with Palladio in the Italian Renaissance and being brought to England
by Inigo Jones as early as 1607, at first produced a "bookish" kind of architecture. In the early years of the period, few artisans and builders had the requisite training to produce, unaided, Renaissance and Palladian structures. Assistance to these artisans came in the form of "how-to-do-it" books and manuals.

One of the earliest such books was John Sturt's collection of one hundred eight-one copper-plates, illustrating mouldings and architectural features. This document, unaccompanied by written comment, was published in 1724. 34 It was followed in 1733 by Francis Price's The British Carpenter, and in 1736 by W. Robinson's Proportional Architecture. Probably the most influential document to come out of this early period, however, was James Gibbs' Rules for Drawing the Several Parts of Architecture, published in 1725. In his work Gibbs gave rules for a simple method of determining the "correct" proportions of the various parts of architecture; simple, that is, in comparison to the rules laid down by Vitruvius, whose books on architecture (c. 30 B.C.) had been both the Bible and the bane of builders since the beginning of the Renaissance.

As the Georgian period progressed, a body of architectural knowledge was assembled. Men who worked at building design began to acquire an erudition of sorts as the period progressed. With an

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increasing move toward professional disciplines in architecture and "with the closer definition of the scope of his [the architect's] work in the second half of the eighteenth century, architectural publications [took] on a new character."35

This "new character" was typified by a movement away from the strictly "how-to-do," toward the development of an aesthetic of more accurate and scientific approach to building skills. Isaac Ware's Complete Body of Architecture, in a revised edition, appeared in 1756. Ware attempted to live up to the promise of the somewhat pretentious title, and the book contained in addition to a "great deal of information of the theory of design,"36 details of trick manufacture, building construction, and the properties of building materials.

In 1759, William Chambers' Treatise on Civil Architecture was published. Dealing with "the orders and other architectural features, [the book] gave scholarly commentaries on the observations of other writers, and included a long account of The Origin and Progress of Building."37 Works of this nature continued to be written throughout


36Jenkins, p. 101.

37Jenkins, p. 101.
the eighteenth century and well into the nineteenth, both in England and in America. 38

By far the most significant work to originate in this period of exploration, however, was Stuart and Revett's *Antiquities of Athens*, published in 1762. This work, consisting of a volume of measured drawings of Greek houses, and a volume devoted entirely to the wonders of the Acropolis, rekindled in England the spirit of Greece and Classicism, and rekindled it with a dynamism which had never before obtained. Although the effects of this work in the 1760's were felt more strongly in the field of decoration than in architectural design, the treatise was to serve as the progenitor of the Greek Revival movement which swept the nineteenth century.

While often limited to a rather small printing, architectural books of the last half of the eighteenth century were frequently widely circulated, and men from virtually every facet of the arts came in contact with them. Stephen Ricci's treatise serves to illustrate the extent of this circulation. Written in 1768, The Grecian Orders of Architecture... from the Antiquities of Athens, which included a section of the Parallel of the Orders of Palladio, Seicamzzi and Vignole, was shunned by "professional" architects because of the amateur status of its author. But the book nevertheless found

38 See footnotes 33 and 34, Chapter I, p. 27.
its way into the libraries of "leaders among the nobility, certain carpenters and builders; David Garrick, and Stubbs, the painter." 39 Men of the arts, it would seem, shared common artistic interests.

A brief examination of the contents of a library of the period reveals the extent to which an architect was indebted to the past. The library of Henry Holland, who substantially altered Covent Garden Theatre and who was responsible for the rebuilding of Drury Lane in 1794, is a case in point:

Like most architects of the period, Holland possessed a library of architectural works. The sources of his classical studies were: Desgodetz's Les Édifices Antiques de Rome, 1682; and Stuart and Revett's Antiquities of Athens. He could also turn to Neuforge's four volumes for special purposes, to LePautre for ornament, and to Piranesi for general ideas. 40

With such texts readily available, an artist of the last quarter of the eighteenth century had at his fingertips all of the components of the style which has come to be called "Georgian."

Following Richardson, it seems proper to describe the late eighteenth century as an architectural period in which architects, thoroughly familiar with classical traditions and precepts, explored practical innovations in construction and planning. "Architects had long come

39Richardson, pp. 93-94. He cites as his authority the subscription list for the sale of the volume.

40Richardson, p. 97.
to the understanding," writes Richardson, "that knowledge had to be acquired before designs could be attempted. It was, therefore, constant reference to classical precedents which ensured variation in design."

For the ambitious and imaginative artist, the latter part of the eighteenth century provided a fertile ground. With the legacy of the Renaissance which had come to maturity a century before in the works of Wren, "the very utmost" that the late Georgian architect could do "was to expand what had been done previously; to repeat with additional emphasis the successes of their predecessors. This," concludes Richardson, "was the real secret of the spirit of the time."

This understanding of the latter years of the Georgian period as a time for expanding the already tried, a time for repeating with new emphasis established and successful forms, enables us to better evaluate Richards and the derivative nature of the stock certificate proposal for the Chestnut Street Theatre in Philadelphia. John Inigo Richards, the drafter of the proposal, was not, in any sense of the word, an architect. Chapter IV of the present study presents materials which indicate Richards' competence as a landscape painter, and although iconographic evidence of Richards' scene designs is limited to a single engraving, the artist's continuing employment at Covent Garden Theatre attests to his competence in that area. But there is nothing to support a contention that Richards ever worked
as an architect. It is reasonable to infer, however, that through his close contact with the distinguished members of the Royal Academy, many of whom were architects, and from his willingness to undertake the alteration of Covent Garden Theatre in 1734, Richards must have possessed at least a rudimentary knowledge of late eighteenth century architectural theory.

John Inigo Richards: "Architect" of the Chestnut Street Theatre.--Richards' only known architectural endeavor, other than the proposal for the Chestnut Street building, was the remodeling of Covent Garden Theatre. An examination of the architectural aspects of this remodeling, however, tends to place both the extent of the remodeling and the nature of Richards' excursion into architecture into a proper perspective. Written six years after the alterations were completed, Saunders' A Treatise on Theatres provides the best contemporary account:

Covent Garden theatre has been built about 60 years; during which time it has not undergone any material alteration, except in the decorations, till the year 1734, when it was judiciously widened under the direction of Mr. Richards, who was confined to the present walls, and therefore could not extend it as he wished.\[41\]

Since the trend in English theatres during the last quarter of the eighteenth century was toward larger theatres, it is probable

41 Saunders, p. 83.
that Richards was called upon to enlarge the seating capacity of the theatre and to redecorate the house. Confined as he was to the area within the existing walls, Richards could only have increased the depth of the boxes, decreased the depth of box passages, and decreased the distance between benches in the pit in his efforts to create more seating area. This seems to have been the case, for Saunders voices the complaint that "the public should not submit to be crowded into such narrow seats: 1 foot 9 inches is the whole space here allowed for seat and void," and he insists that a person is not comfortable in less space than two feet.\footnote{Saunders, p. \textit{84}.}

Unfortunately, little iconographic material relating to this period of the Covent Garden theatre has survived. Figure 10 shows the theatre as it appeared in 1763, many years before the remodeling, while Figure 11 presents the ground plan of the theatre as it appeared following the remodeling. A comparison of these figures reveals little about the extent of the alterations, although it does appear that Richards extended the forestage according to Saunders in an effort to correct acoustical deficiencies.\footnote{Saunders, p. \textit{84}. In the 1763 drawing (Fig. 10), the line of the forestage is even with the first box, while in the 1784 plan (Fig. 11) the forestage line joins the front of the second box.}
Figure 11. Ground Plans of the Covent Garden Theatre, 1734. Saunders' Treatise on Theatres, Plate X. Library of Congress. OSVTC Film No. 130.
Richards' redecoration failed to please Saunders, especially the artist's use of relief in the decor:

Mr. Richards would have acted judiciously had he introduced more painted ornaments in lieu of projecting ones, which as a scene painter I am rather surprised he did not. For example, the parapets of the gallery-fronts and upper boxes, which afforded opportunities for plain surfaces, are filled in with solid balusters; the others are divided into panels and tablets, with carved ornaments in the friezes. 44

Saunders' greatest objection to Richards' architectural work, however, concerns the treatment of the frontispiece: "The frontispiece is such an one as no architect would have applied. Were a painted frame to be proposed for a picture, how would a connoisseur exclaim." Although no iconographic evidence of the treatment of this frontispiece exists, Saunders seems to be objecting to Richards' using the frontispiece to extend the scene into the auditorium, rather than using this framing device to separate auditorium and stage. Whatever Richards' reasons for such an arrangement, it is clear that Saunders takes issue with the artist's sense of architectural propriety, and the general tone of his account tends to discredit Richards' architectural endeavors entirely. In the absence of evidence to the contrary, Saunders' dissenting evaluation of Richards as architect must be considered authoritative.

44 Saunders, p. 84.
Richards' motives for undertaking the preparation of the stock certificate drawing and the model for the New Theatre in Philadelphia will probably never be known. Perhaps in the spirit of experimentation which permeated the age, Richards welcomed the opportunity to strike out in a new artistic medium. Whatever Richards' motivation, he clearly turned to "what had been done previously," and in his attempt to create a theatre building for Philadelphia, he repeated "with additional emphasis the success of [his] predecessors," as these successes manifested themselves in the best elements of Georgian architecture.

To summarize, late Georgian architecture was the extension and continuation of a tradition begun in the Renaissance and brought forward into the eighteenth century. Since the Georgian style relied heavily on Palladian "rules" and on Classical aesthetics and models, for its form, most of the buildings constructed in the Georgian style were, perchance, derivative, making use of Classical and Renaissance motifs. Understandably, therefore, any building designed in the Palladian tradition, following the "rules" laid down by Palladio, Gibbs, and the others, not only would necessarily be derivative, but

45 Throughout the existence of the theatre in Chestnut Street, the names Chestnut Street Theatre, New Theatre and Philadelphia Theatre were used interchangeably. Occasionally, in some of the early playbills and newspaper advertisements, the establishment was simply referred to as The Theatre.
also would be derived from a continuing tradition, rather than from any single architectural source.

Richards' proposed design for the Chestnut Street Theatre represents a composite of Palladian and Classical motifs and in that sense is derivative. Examples of these motifs are to be found in Figures 12 through 20. The author's intent is to introduce the reader to motifs which span the entire eighteenth century, rather than to suggest that any one of these examples served as Richards' model or inspiration for the Philadelphia theatre.

Examples abound in which a rusticated facade in the basement story of a building serves as an arcade or as a partial arcade. Figure 12, Thomas Ripley's elegant Wolterton Hall, 1724-30, exemplifies such an arrangement. This arcade, from the general outlines of the arches to the detail of the balustrade surmounting the rusticated facade, could have been used intact for the Chestnut Street proposal, with only minor adjustments in proportion to accommodate the differences in size of the buildings.

Certainly the most characteristically Georgian element in Richards' drawing is the arrangement of a basement story serving as a base for an order of columns or pilasters supporting a pediment. This device is found throughout England and America during the eighteenth century.

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46 See for example the Upper Castle Yard, Dublin, 1730, or the Liverpool Town Hall, executed 1748-55 by the Woods of Beth.
Figure 12. Wolterton Hall, 1724-30. Thomas Ripley, architect. Richardson's An Introduction to Georgian Architecture, p. 161.

Figure 13. Houghton, Norfolk. Colin Campbell, architect. Richardson's An Introduction to Georgian Architecture, p. 150.
and nineteenth centuries. It appears in Norfolk, England, as early as 1722-30 (Fig. 13) and in Bath as early as 1728 (Fig. 14) and on Milsom Street (Fig. 15) as late in the period as 1762. A similar arrangement, with pilasters rather than columns, can be seen at Belcomb Brook, Bath, built in 1734 (Fig. 16). In Philadelphia, such an arrangement made its appearance in 1755, and it is undeniable that the Pennsylvania Hospital, designed by Samuel Rhodes, bears a striking resemblance to the Chestnut Street Theatre proposal. With modifications, the spirit, if not the letter, of this motif may be seen in such other American examples as the Capitol, Richmond, Virginia (Thomas Jefferson, 1785-92); Christ Church, Lancaster, Massachusetts (Charles Bulfinch, 1816); and, Second Bank of the United States, Philadelphia, Pennsylvania (William Strickland, 1818-24). In each of these American examples the influence of the Greek Revival is paramount, and in most instances the rusticated basement story has given way to a simple base or socle.

In concluding this brief survey of motifs, Figure 17 presents an example of a characteristic Venetian window, which indicates the very typical nature of that window which decorates the central portion of the principal stories in the Chestnut Street proposal. Osbourne describes this type of window as "a characteristic Palladian feature of the first half of the 18th century" (Fig. 17). Three examples of the use to which this type of window was put are presented in
Figure 14. Queen Street
--Center House on North Side, 1728.

Figure 15. Milsom Street
Bath: *The Somersetshire Buildings*, 1762. Believed to have been designed by T. Lethbridge. Green's *The Eighteenth Century Architecture of Bath*, Plate XCVII. Courtesy of George Gregory, Publisher.
Figure 17. Venetian Window, Employing the Doric Order. Osbourne's A Dictionary of English Domestic Architecture, p. 103. Courtesy of the author.
Figures 18, 19, and 20, with Figure 10 showing the window used in a public building.

In each of the examples cited, the detailing, proportion, and, in some cases, the architectural order differ from similar elements in Richards' design, but such a difference is to be expected, for Richards was surely too much the artist to copy slavishly from any source. He was rather influenced by the temperament and taste of his time, and the drawing prepared for Thomas Wignall reflects that influence. The building, both in the Richards' design and as it was actually constructed, was clearly and undeniably English--conceived as a Georgian structure and executed in the Georgian tradition.

This chapter has traced the development of the architectural shell which housed the Chestnut Street Theatre company, from the "architect's" conception which appeared on the stock certificates issued by Wignall and Reinaige in 1791-92 to the completion of the building in 1804-05 by Benjamin Henry Latrobe. The sources for the design have been examined, and the Darang Statement that the theatre was "a perfect model of the Bath theatre, in England," having been found inconsistent with the evidence at hand, has been rejected.

McNamara's theory that it was the Limerick theatre which influenced Richards' design has been similarly rejected. In its stead has been developed the theory that the Chestnut Street proposal, while unquestionably derivative, evolved from Richards' exposure to
the continuing tradition of Palladian-Georgian architectural forms, rather than from the artist's reliance on any single source or model.

Finally, elements of the Palladian-Georgian tradition have been examined. Examples of designs from America as well as England have been introduced to place the derivative nature of Richards' work into proper perspective. It lends to the Chestnut Street Theatre building a strength and stature which it richly deserves, when it is concluded that the building was derived from a tradition of two hundred years standing, rather than copied directly from some pre-existing English structure.
CHAPTER III

THE CHESTNUT STREET THEATRE AUDITORIUM

"... you ascend in front by a flight of marble steps, enter the lobby and pass to the corridors, which communicate with all the boxes." Following Dr. Masse on his descriptive journey into the interior of the old Chestnut Street Theatre, let us examine the several accounts and pictorial representations of the theatre. Six accounts have been used in the present study; all were written by men who worked in, or who saw performances in, the Chestnut Street establishment. Three of these sources may be considered primary¹ and are quoted in part below.²

¹The term primary is used here in a very limited sense, applying only to those descriptions which were written during the existence of the original theatre building. Sources written at a later date, even though the author may have worked in the 1794-1820 building, are considered secondary, subject to the influence of prior accounts, and possibly spurious.

²These accounts are given in their entirety in Appendix B.
The Accounts.—Boréau de Saint-Méry provides the most extensive description of the building's interior:

The interior is handsome. The arrangement of the boxes in an agreeable semi-ellipse. The boxes are in three tiers, one above the other, fifteen boxes in each. Of these fifteen, each of the five facing the stage has seven rows of benches and will thus seat thirty-five people. . . .

Each of the ten side boxes in each tier has two rows of benches and will seat four people in each row. Each row of boxes will seat 225. . . .

The auditorium is painted gray with gold designs. The third row of boxes even has slender gilt railings of some elegance. The boxes, between which a small pilaster at the front almost blocks the view, are papered in tasteless red paper. . . .

The auditorium is lighted by small four-branched chandeliers placed in every other box beginning with the middle of the second on each side, so that the upper rail of each tier of boxes has seven. Each hangs on an S-shaped gilded iron bracket. The orchestra pit holds 30 musicians in two rows facing each other. The forestage is large. The sides of the forestage represent the façades of handsome buildings but they face too much toward the stage so that they interfere with the view from the side boxes. . . . The stage, which is large, is lighted by oil lamps as in France which can be lowered for night scenes. In the wings are crude lamps consisting of wicks floating in lard. . . .

The corridors are large and commodious. . . . the heaven [is] formed by that part of the third tier above the section of the second tier with the five boxes and seven rows of benches. 3

Written at about the same time as the Saint-Méry account, a

description of the theatre appeared in the New York Magazine for April, 1794. Authorship of the article is not known:

That part of the theatre before the curtain forms a semicircle; having two rows of boxes extending from side to side, with another row above these, and on a line with the gallery in front. The boxes are lined with a pink colored paper, with small dark spots, and supported by pillars. . . . and a profusion of glass chandeliers form an assemblage that captivates the eye. 4

Dr. Mease's account of the theatre was published in 1811 in his book, Picture of Philadelphia. Mease's description furnishes the only known dimensions for the Chestnut Street building:

The extreme depth of the theatre is one hundred thirty-four feet. . . . In the wings are the green room, dressing rooms, scene rooms, &c. Through the projecting wings or pavilions, you pass to the stairs of the galleries; under the colonnade, the left hand door leads to the pit, but to the boxes you ascend in front, by a flight of marble steps, enter the lobby and pass to the corridors, which communicate with all the boxes. Those in front of the stage are disposed in the form of an amphitheatre; . . .

The stage occupies a front between the boxes of thirty-six feet, and runs back upwards of seventy one feet. . . .

The fronts of the lodges or boxes, together with the ceiling, are handsomely gilt and decorated, hung with corresponding drapery between the columns. 5

4 New York Magazine or Literary Repository, April, 1794. The article is dated 12 March, 1794, from Philadelphia.

5 Mease, p. 330.
Of the three secondary accounts, the earliest, by the actor John Bernard, was written about 1828:

I made my début at Philadelphia in the Chestnut Street Theatre in two of my London characters, at the handsome theatre built on the model of Covent Garden. . . . and the principal scenery of which had been painted from designs by de Loutherbourg, and imported with the wardrobe.⁶

William Dunlap, in his History of the American Theatre, mentioned the Chestnut Street house only briefly:

The part of the theatre before the curtain formed a semicircle, having two complete rows of boxes, and higher up, on a line with the gallery, side boxes. . . . numerous chandeliers gave a brilliant effect to the whole.⁷

Finally in 1854, Charles Durang described the theatre as "a perfect model of the Bath theatre, in England," quoted Dr. Mease's account in its entirety, and summed up his article by noting that,

The public journals spoke well of this inauguration. [That is, they spoke well of the opening of the Chestnut Street Theatre.] The interior of the house was described as consisting of two tiers

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of boxes. . . . The boxes were ornamented with crimson drapery and tassels, and the panels were of a pale rose color. 8

The Iconography.--Before considering these six descriptions further, it is necessary to introduce the iconographic materials associated with the Chestnut Street Theatre of 1794. Fortunately, the theatre is well documented iconographically, for it is represented by two views of the auditorium, one drawn in 1794, the second executed in 1798, and three ground plans of the interior.

Figure 21 is the earliest known view of the interior of the auditorium. This engraving accompanied the New York Magazine article of April, 1794. Authenticated through plans of the theatre, this engraving appears to provide a reasonably accurate illustration of the theatre's interior, although certain specific details, recorded in the Saint-Mary account of the theatre, do not appear in it. 9

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8Durang, Vol. 1, Chapter XIX, p. 35. The evidence here implies that Durang relied entirely on descriptions of the theatre for his account, and the facts concerning Durang's life substantiate the hypothesis that he had no contact with the theatre until it had undergone numerous changes. Pollock, who chronicled the Philadelphia theatre activity from its beginnings to 1800, makes no mention of Charles Durang, and the earliest appearance which Durang made in the Philadelphia theatre appears to have been in 1805.

9These omissions may well have been due to the doubtful competence of the artist, J. Lewis, and the engraver, "Ralph" Stauffer (David McNeely Stauffer, American Engravers Upon Copper and Steel [New York: The Grolier Club of the City of New York, 1907]) and Yantle Fielding (Dictionary of American Painters, Sculptors and Engravers [New York: J.F. Carr, 1965]) list a "J. Lewis Sculpt.," who worked as an artist and engraver in the Philadelphia-New York area from as
Figure 21. Interior of the Chestnut Street Theatre, 1794.
The New York Magazine, April, 1794.
Figure 22, Joseph Jackson’s view of the interior of the theatre, was drawn in 1798 on the occasion of the first public singing of "Hail Columbia" and presents a view of the theatre from inside one of the east boxes. In certain details this view may be proved accurate, although its representation of the boxes along the west wall of the theatre is totally inaccurate.

Figures 23 and 24 were drawn by Henry Warren and represent respectively the plan of the theatre at the level of the stage and the plan at the level of the painting-room floor. The plans are unsigned and undated. However, comparison of the handwriting on the plans with specimens taken from Henry Warren’s letters makes possible positive identification of the draftsman.

It has not been possible to date the execution of these plans, however. The plan at stage level (Fig. 23) has been identified by the draftsman as "Stage Plan of the Old Chestnut Street Theatre - 1806," while the upper level plan (Fig. 24) is inscribed "Section of the Old

early as 1791 to at least as late as 1813. Dunlap (Art of Design History) carries no entry under this name. "Ralph" is mentioned by numerous authorities, and Stauffer (I, 217) sums up the man as well as any: "Ralph was a line-engraver of views, &c., of little merit. He was working in Philadelphia in 1794-1808, and engraved at least one plate for the New York Magazine." This, of course, is the plate under present consideration.

10 From the notebook of Joseph Jackson, owned by the Historical Society of Pennsylvania. Dunlap dates the event three days later, on April 28th, but he is probably in error.
Figure 22. Interior view of the Chestnut Street Theatre, 1798. Drawn by Joseph Jackson, Philadelphia. Courtesy of the Historical Society of Pennsylvania.
Figure 23. Henry Warren's Plan of the Chestnut Street Theatre at Stage Level, ca. 1806. Warren Scrapbook. OSUTC Film No. 1759#.
Figure 24. Henry Warren’s Plan of the Chestnut Street Theatre at the Level of the Painting Room. Warren Scrapbook. OSUTC Film No. 1759.®.
Chestnut Theatre of 1808 after the Plan of the Old Covent Garden, England, from the Painting Room Floor.\textsuperscript{11} Henry Warren probably possessed the skill to draw these plans in 1806, for although he was only sixteen years old, he assisted with the preparation of scenery for the Chestnut Street Theatre in 1810.\textsuperscript{12} Possibly the plans were drawn at some later date, for the use of the word \textit{old} in describing the Chestnut Street Theatre suggests the presence of a new theatre. The handwriting, however, shows none of the deterioration associated with Warren's writing in his later years.\textsuperscript{13}

The Henry Warren plans depict the theatre as it probably was laid out during the first decade of the nineteenth century and reflect the Latrobe additions to the original building. The Stine plan of the

\textsuperscript{11}The variant spelling "Chesnut" is quite common during the eighteenth and nineteenth centuries.

\textsuperscript{12}From the title page of the Description of the Popular and Comic New Pantomime, Called Mother Goose, or the Golden Egg. (Philadelphia, T. de Silver, 1810): "The scenery entirely new, designed and executed by Mr. Robbins, assisted by Mr. Stuart, H. Warren, and T. Reinagle." (OSUFC Film No. 93).

\textsuperscript{13}At one time a third plan existed in the scrapbook. Now, only an inscription remains. This inscription appears to be in Henry Warren's handwriting and is dated "1858." The handwriting is very defective, suggesting the effects of age.
theatre (Fig. 25), a carefully measured drawing by an unknown draftsman, was drawn sometime after 1816. Dating of this plan is made possible by the knowledge that the theatre was not lighted by gas until 1816; in the northwest corner of the complex of buildings represented in the Stine plan may be seen two structures, labeled "gas house" and "gas furnace." 

This brief introduction has presented the descriptive and iconographic materials related to the Chestnut Street Theatre. From these, with the aid of related materials, it is possible to develop a detailed analysis of the interior arrangement of the Chestnut Street Theatre. As was true with a consideration of the exterior of the building, the question of an archetype for the interior arrangement must be dealt with from the outset.

The Bath Theatre Controversy.---Most historians, following Durang's lead in the absence of other evidence to the contrary, have assumed that the Chestnut Street Theatre, inside and out, was

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14 Although this plan seems to have been discovered about 1950 by Miss Agnes Gilchrist, it was Dr. Stine who first published the plan in 1951. Since no information concerning the authorship of this plan is available, I have elected to refer to the document throughout the present study as the Stine plan.

15 The gas apparatus is discussed in detail in subsequent pages of this chapter.
Figure 25. Unidentified Plan of the Chestnut Street Theatre, ca. 1816. This plan is referred to throughout the text as the "Stine" Plan of the theatre. Courtesy of the Historical Society of Pennsylvania.
"a perfect model of the Bath theatre, in England."\textsuperscript{16} As Stine has pointed out, however, even a cursory comparison of the Chestnut Street Theatre with the Bath theatre, England, quickly dispels the credibility of Durang's statement. The interior of the Bath theatre was recorded in watercolor by Nixon, probably shortly after the theatre was opened in 1750 and certainly before it was altered in 1767.\textsuperscript{17} It is presented in the present study as Figure 26. Because of its dating, however, the Nixon watercolor cannot be used in such a comparison, for the Bath theatre underwent two major alterations subsequent to Nixon's painting, one in 1767, the other in 1774 or 1775.

In 1756, according to Penley,\textsuperscript{18} "... the ceiling [was raised] into a dome, in which were placed, in alto-relievo, Apollo and the Muses." In 1774 or 1775, having been found to be extremely

\textsuperscript{16}While it would be presumptuous to attempt to ascribe influences to their work, it is interesting to note that Seilhamer, writing in 1891, quotes directly from Durang; Arthur Hornblow, in 1919, cites Seilhamer. Quinn in 1943, Hughes in 1951, McKenzie in 1952, and Hewitt in 1959, all compound the error, accepting Durang's statement without challenge. So far as I know, the first historian to take issue with Durang was Richard D. Stine, in 1951; Abe Wollock, in 1963, carried on Stine's thesis.

\textsuperscript{17}The whereabouts of the original watercolor is unknown. In 1904, it was in the possession of Howbray Green, but in 1948, Richard Southern indicated that the original had disappeared. The drawing is reproduced in Green and in Southern. Identification of "Nixon," the artist, has not been possible.

\textsuperscript{18}Penley, p. 34.
Figure 26. Nixon Watercolor of the Interior of the Bath Theatre, Orchard Street, ca. 1750. Green's The Eighteenth Century Architecture of Bath, Plate CXXXIII. Courtesy of George Gregory, Publisher.
detrimental to the acoustics of the theatre, the dome and the attendant Muses were "... all removed, the proscenium was adorned with pillars of the Ionic and Doric orders, ... The pit was raised, greater space was given between the seats ... The stage, too, was improved and enlarged," the enlargement accomplished by extending the building at the rear. Of this greatly improved 1775 version of the theatre, no iconographic record remains. The Nixon view clearly does not record this final version of the theatre's interior, showing, rather, a very simple undecorated provincial theatre, reflecting more of a Restoration rather than Georgian flavor in its starkness.

Three factors vitiate Durang's contention that the Bath theatre served as a model for the Chestnut Street establishment. Two of these factors involve the size of the English theatre. Wood, with Howbray Green concurring, records that the Bath theatre was "sixty feet long and forty feet broad in the clear." Even making allowance for the extension onto the stagehouse in 1775, these dimensions fall far short of the typical range of late eighteenth-century metropolitan playhouses, and argue against the Bath theatre as a model for Chestnut Street.

19Wood's An Essay Towards a Description of Bath, as quoted by Penley, p. 34. Green visited Bath shortly before the publication of his book in 1904 and confirms Wood's description.

20The Royalty Theatre, Welleclose Square, London, for example, measured 56 by 120 feet. This theatre was built in 1787. Covent Garden theatre, as it stood in 1790, was 56 feet wide; although a total depth for the theatre is not known, the depth from the stage to
having served as a model for the Chestnut Street Theatre. Moreover, the trend at the end of the eighteenth century was toward increasingly larger playhouses. Durang's contention notwithstanding, it seems highly unlikely that Richards would have selected as a model a theatre which was so small and out-moded that it was abandoned in 1805 in favor of a new and more spacious building.

We may apply to the reasonableness of Durang's statement what Louis Nizer has called the "rule of probability," which posits that while many solutions are possible, the solution to a theory or hypothesis which is most plausible and least complicated is usually the correct one. In the case of John Inigo Richards, it seems improbable to suggest that the London scene designer and sometime architect would choose as his model a small, out-moded provincial playhouse, to the exclusion of possible models in London or other large metropolitan areas. It seems more probable that Richards would draw on theatre models either in English provincial cities or in London--more nearly like the finished design of the Chestnut Street Theatre.

The furthest seat in the auditorium was 86 feet--26 feet deeper than the total depth of the Bath theatre. Finally, the Chestnut Street Theatre measured 64 by 150 feet as first built, 90 by 150 feet as completed.

Chestnut Street Theatre may have been modeled after the Limerick Theatre, suggests that the Limerick Theatre's interior might have served as the model for the Chestnut Street interior, but is quick to admit that "such a supposition, . . . is based as much on guesswork as on any real evidence," and that the two interiors really bear little resemblance to each other.

Royalty Theatre: A Possible Influence.---The new Royalty Theatre, Wells Street, Wellclose Square, London, built in 1787, may well have influenced Richard's design.\(^{22}\) Several points of similarity between the Chestnut Street and Royalty theatres suggest the possibility of influence. Passages from the Saint-Héry description of the Chestnut Street Theatre and passages from the

\(^{22}\)The Royalty Theatre was the only new theatre of any consequence built during the decade preceding the construction of the Chestnut Street Theatre. There were several other theatres built or refurbished in London during this period, among them the Apollo Gardens (1783), the house in Cold Bath Fields (1783), Astley's Amphitheatre of Arts (1783), and Bibbin's Small Theatre (1783), but none of these was suitable to have served as an influence on the Chestnut Street design.
Gentleman's Magazine report of the Royalty Theatre\textsuperscript{23} are placed in apposition below for purposes of comparison:

<table>
<thead>
<tr>
<th>Saint-Mary</th>
<th>Gentleman's Magazine</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Auditorium is painted gray, with a gold design.</td>
<td>The theatre is painted of stone color, the borders richly gilded.</td>
</tr>
<tr>
<td>The boxes . . . are papered in tasteless red paper.</td>
<td>A rich crimson paper has been chosen for the boxes.</td>
</tr>
<tr>
<td>The auditorium is lighted by small four-branch chandeliers . . . Each hangs on an S-shaped gilded iron bracket.</td>
<td>The whole of the boxes are illuminated with glass chandeliers, made from a drawing truly elegant.</td>
</tr>
</tbody>
</table>

The gray auditorium at the Chestnut Street Theatre, with its red and gold boxes, represents a departure from the usual dark green motif which graced many of the late eighteenth-century theatres. Perhaps Richards, struck with this handsome motif in the Royalty Theatre, incorporated a similar color scheme into his plans for the Chestnut Street house.

The lighting fixtures in the auditorium of the two theatres bear a remarkable similarity. Figure 27, a view of the interior of the Royalty Theatre as it appeared in 1794, represents chandeliers which match in every respect the description of the lighting fixtures in the Chestnut Street Theatre. Again, however, we cannot ascribe a direct relationship, but rather must speculate on influence. The

fixtures in the two theatres are not, so far as I have been able to
determine, typical of theatrical lighting fixtures of the period.
A four-branch chandelier, depending from an S-shaped bracket was
a typical nontheatrical fixture in the late eighteenth century,
however, and is occasionally seen in theatre iconography of the
period. Like the similarity in the color schemes of the two theatres,
the presence of similar lighting fixtures in the two buildings may be
nothing more than coincidence.

One highly unusual feature of the Royalty Theatre is reflected
in the Chestnut Street Theatre, however, and the singularity of the
arrangement suggests something more concrete than coincidence.
Typically, the front edge of eighteenth and early nineteenth-century
stages lay in the same plane as the orchestra pit rail; this is to
say, if the front edge of a stage was curved, the orchestra pit rail
reflected a similar curve, while a straight pit rail reflected a
straight stage-edge.

Although seemingly at first glance a sweeping generalization,
this theory is well supported by iconographic evidence from the
period. Contrary to common practice, the Royalty Theatre presents a
straight stage-edge, fronted by a curved pit rail. The same

24 There were occasional deviations from this arrangement,
but they tend to come early in the eighteenth century. This kind of
deviation, which is usually always slight, can be seen in the Haymarket
Opera House, about 1763, for example.
arrangement is to be found at the Chestnut Street Theatre, prior to
1806. Figures 27 and 28 illustrate this relationship of pit rail to
stage front in the Royalty Theatre, while Figure 21 shows the
relationship between stage-edge and pit rail in the 1794 Chestnut
Street Theatre. The arrangement is so unusual that it virtually
excludes the possibility of coincidence, and this particular feature
of the Royalty Theatre was probably incorporated into the Richards'
plans for the Chestnut Street Theatre.

The Controversy Resolved.—In the light of new evidence
supplied by the Warren scrapbook, it may now be conclusively stated
that the primary model for the Chestnut Street Theatre interior was
the Covent Garden Theatre, as it appeared in the period between 1784
and 1791.25 It is ironic that this information has been available to
scholars of American theatre history in another source since 1830, but
has either been overlooked or ignored.

First published in 1830, under the title Retrospections of the
Stage, by the late John Bernard, Manager of the American Theatres.

25 It is possible that the Covent Garden Theatre also served
as a model for the exterior of the Philadelphia theatre, although
there is no evidence to support such a thesis and the remains of
the facade of the Covent Garden Theatre as it appeared after the fire
suggest otherwise.
and formerly Secretary of the Backsteak Club, John Bernard’s biography recounts that, "I made my debut at Philadelphia in the Chestnut Street Theatre in two of my London characters, at the handsome theatre built on the model of Covent Garden, ..." (The italics are mine.)

In this identification of the model for the theatre, Bernard’s authority cannot be disputed. Born in Portsmouth, England, in 1756, Bernard and his wife "joined the company at the Bath Theatre ... in England," in the winter of 1777-78. From 1787 through 1795, Bernard and his wife lived in London, where Bernard frequently acted at the Covent Garden theatre. In 1797, Bernard came to America, where he was employed until 1803 with the Chestnut Street Theatre company. "On his retirement from the stage and return to England [in 1819], Bernard began the preparation of his biography; and about a year before his death [in 1828] he completed his work ...".

Bernard’s competence to describe the Chestnut Street Theatre

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26 A second edition was published in 1832, and numerous articles were developed from the material by Bernard’s son. The work was re-published in 1837 by Bayle Bernard, under the title Retrospections of America (New York: Harper & Brothers), with an introduction by Branden Matthews and Laurence Hutton. Quotations in the present study are taken from the 1837 edition.

27 Bernard, p. 69.

28 Bernard, p. vi.

29 Bernard, p. vi.
as "built on the model of the Covent Garden" is unchallengeable; he worked extensively at the first Theatre Royal in Bath, and at the Covent Garden Theatre, London, and singled out the latter theatre as the model for the Philadelphia house. Nevertheless, were his identification unsupported, it still might be subject to doubt. It must be remembered, however, that Henry Warren, in identifying his plan of the Philadelphia theatre at the level of the painting room, cited the Chestnut Street Theatre as being "after the Plan of the old Covent Garden, England." The conclusion that Bernard correctly identified the model for the Chestnut Street Theatre as the Covent Garden Theatre--Durang and subsequent scholars to the contrary--is inescapable.

Operating on the strength of his conclusion, it should be possible to draw on Covent Garden descriptive and iconographic materials to support a discussion of the interior of the Chestnut Street Theatre. Unfortunately this cannot be done, for virtually no material associated with the 1781-92 version of the Covent Garden theatre has survived the years. There remains no known view of either the interior or exterior of the theatre from this period, nor does there appear to be any description, other than that supplied by

30 In this context, the use of the word old in connection with the Covent Garden theatre can only be employed to differentiate between the 1732-91 version of the theatre, the theatre which Richards altered in 1761, and Henry Holland's new Covent Garden theatre of 1792.
Saunders, of the interior of Richards' version of the theatre.\textsuperscript{31} Saunders Treatise on Theatre provides the only plans of the theatre, but these plans given in the present study as Figures 29 and 30 show the auditorium only, for no plans of the stage have survived.

The Covent Garden Theatre.--It is with considerable difficulty that we trace the history of the Covent Garden building. H. Saxe Wyndham compiled what is still the most complete treatise on the early building, but this treatise is sketchy at best concerning details of the facilities.\textsuperscript{32} Erected in 1731-32 by John Rich, the theatre stood at the north-east corner of the Piazza on Covent Garden. "It had no frontage worth mentioning in any direction," wrote Wyndham, "for the west side abutted on to a narrow passage running into Hart Street from the Piazza, which contained the principal entrance, while Hart Street never was, and is not now, wide enough to be worthy of a fine elevation being erected."\textsuperscript{33} A map of 1799 showing the Covent Garden area of London is presented in Figure 31. The entrance to the stage was between two houses in Bow Street. Figure 32 shows the remains of the Covent Garden theatre after the fire of 1808 and indicates the facade on the piazza.

\textsuperscript{31}The Saunders description is given in detail on pp. 70 and 74.


\textsuperscript{33}Wyndham, p. 25.
Figure 29. Plan of the Covent Garden Theatre, 1734, at the Level of the Stage. Saunders' Treatise On Theatres, Plate X, Fig. 2. Library of Congress. OSUIC Film No. 130.
Figure 30. Plan of the Covent Garden Theatre, 1734, at the Level of the Boxes. Saunders' Treatise On Theatres, Plate X, Fig. 3. Library of Congress. OSUC Film No. 130.
Figure 32. The Exterior of Covent Garden Theatre After the Fire. Drawn September 27, 1809. From a print in the Harvard Theatre Collection. OSUIC Film No. 1443.
As it stood in 1732, the theatre was cramped, a condition which was to plague it until the day of its destruction. Charles Dibdin described the longitudinal diameter of the auditorium, from the stage front to the rear wall, as 54 or 55 feet, a dimension which remained unchanged at least until 1792.\(^3\)\(^4\) According to Wyndham,

The stage was small, without footlights, and illuminated by four hoops of candles, over which a crown hung from the borders. The orchestra was of a bowed form, and did not run the whole breadth of the house. It held from fifteen to twenty musicians. The boxes were flat in front, and had twisted double branches for candles fastened to the plaster.\(^3\)\(^5\)

Thirty years later, the interior of the theatre had changed little. Figure 10 shows the interior of the theatre as it looked in 1763, on the occasion of the Artaxerxes rioting.\(^3\)\(^6\) In this view, the hoops of candles described by Wyndham are still to be seen hanging above the stage. The "crown hung from the borders" is still in evidence, and the double twists of branches holding the auditorium candles show plainly. The orchestra pit still occupies but a part of the distance between the boxes, and these boxes, with the exception of those on the forestage itself, are "flat in front."

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\(^3\)\(^4\) Quoted by Wyndham, p. 29, from Britton and Pugin's Illustrations of the Public Buildings of London. Sanders' ground plan of the Covent Garden theatre in 1790 yields a stage-to-rear-wall measurement of about 55 to 56 feet.

\(^3\)\(^5\) Wyndham, pp. 29-30.

\(^3\)\(^6\) This figure appears in Chapter II, p. 72.
Figure 33 a caricature of the Covent Garden production of Miss In Her Teens, indicates that by at least 1747, footlight floats had been added to the theatre, despite the fact that these floats do not appear in Figure 11, the view of the 1763 riots. Figure 33 also shows a pair of candle-brackets, set on either side of a very shallow scene. These brackets properly belong to the scene, rather than to the stage, for in Figure 34, a caricature from the 1748-49 Covent Garden production of Apollo and Daphne showing Harlequin escaping into a bottle, can be seen the hoops of candles which were placed in the theatre in 1732 and which remained in the theatre until 1765.

The theatre is next described in a 1782 document, presently in the possession of the Harvard Theatre Collection. At that time, the theatre, under the management of Harris, had been renovated by Richardson. The Harvard document recounts:

The boxes, which were constructed on a very advantageous plan, were considerably elevated, and built upon the stage as far as the space before occupied by the side stage doors. The boxes were separated by Corinthian pillars, white with gold flutings and ornaments, which also supported the upper boxes and first gallery; in the front of each box was a curtain of crimson drapery, and the linings were of the same color; at the back of the front boxes, several others were erected on a new construction, being detached from the rest. The sounding board over the stage represented a clear sky. The front of the lower green boxes was panelled [sic] white, with cornices and festoons of flowers gilt.

37OSUTC Film No. 1439* (London Theatre Iconography collection).
Figure 33. A Satirical Drawing of "The Modern Duel," from the Covent Garden Production of Miss In Her Teens, 1747. Courtesy of The Pierpont Morgan Library. OSUTC Film No. 5.
Figure 34. "An Apology to the Town, for Himself and the Bottle." Satirical Print by Dickson, Covent Garden, 1748-1749.
Library of Congress: OSUTC Film No. 45.
The entrances were also considerably improved. The house opened September 23, 1782, with an occasional prelude by Mr. McNally. 39

This alteration of the theatre in 1782 also included structural as well as decorative changes. The roof over the stage and the back of the second gallery was raised 8 feet, and the seats in the galleries and the pit were raised 6 inches higher than they had been previously.

Wyndham included in his work a print which shows the theatre as it appeared in 1782. 39 In this print, given in the present study as Figure 35 can be seen the “Corinthian pillars,” which separate the boxes and also support "the upper boxes and first gallery." Visible, too, is the "sounding board over the stage" representing a clear sky. Also of note in this print is the disappearance of the boxes over the proscenium doors. Seen clearly in the 1765 view, the boxes have been replaced in the 1782 view by proscenium "balconies."

Special note must be made of a peculiar phrase in the Harvard Theatre Collection document. The author says of the stage boxes:

The boxes . . . were . . . built upon the stage as far as the space before occupied by the side stage doors.

39 OSUTC F. 1443*.

39 The print is dated by Wyndham "c. 1770," but this is obviously in error, as there is no record of major alterations at the theatre between 1763 and 1782, and the details shown in the print correspond to the description of the 1782 alterations.
The implication in this statement is that the boxes were built on the stage in the place where the "side stage doors"—or proscenium doors—had previously stood. This was not the case, however, for proscenium doors remained in general use well into the nineteenth century; both common practice and the view of the interior of the theatre as it stood in 1782 (Fig. 35) belie the logic of such an interpretation. This curious statement must rather be understood to mean that the boxes were built upon the stage as far as the area down-stage of (before) the space occupied by the side stage doors.

This, then, was the theatre that Richards undertook to renovate in 1782: a modest house, adequate in size to handle the needs of a small city, but rapidly becoming inadequate to care for the theatre-going public of rapidly expanding London. According to Oulton, the theatre received in 1782: "various improvements in painting, gilding, and the removal of the boxes, which rendered the house more commodious."40 Saunders, describing the renovations in somewhat more detail, referred to the judicious widening of the theatre, but makes no mention of the removal of boxes. The apparent discrepancy in the accounts hinges on the use of the word "remove," for Oulton uses the term in the strict sense of moving or change from one place to another, rather than in the sense of taking away.

Saunders' primary concern throughout his Treatise on Theatres lies with the acoustical properties of theatres, and much of his carping with Richards' alterations of the Covent Garden theatre focus around this concern:

[In] the year 1734... Covent Garden... was judiciously widened under the direction of Mr. [John Inigo] Richards, who was confined to the present walls, and therefore could not extend it as he wished... the parapets of the gallery-fronts and upper boxes, which afford opportunities for plain surfaces, are filled in with solid balusters; the others are divided into panels and tablets, with carved ornaments in the friezes;... and all the partitions are lined with paper, and festoons of drapery hang in front (This I imagine to have been done to hide an architectural defect, the floor of the upper ranges being below the architrave of the under range.)... The public should not submit to be crowded into such narrow seats: 1 foot 9 inches is the whole space allowed for seat and void; though a moderate-sized person cannot conveniently sit in a less space than 1 foot 10 inches from back to front, nor comfortably in less than that of 2 feet... The great advance of the stage-floor was made with a view to obviate the great difficulty of hearing in this theatre... The original form of this theatre was similar to the present theatre in Drury lane [sic], and is presented by the dotted lines, fig. 3. [41]

Richards' "judicious" widening of the theatre seems to have been limited to moving the back walls of the boxes about 1 foot off-stage. An examination of Figures 29, the plan of the theatre at the level of the first boxes, indicates the dotted lines to which

Saunders referred. A comparison of these dotted lines with the line
of the new walls indicates the extent of the alteration.

By moving the walls of the boxes north and south and reducing the seat-and-void measurement by three inches per bench, Richards was able to gain an additional 21 inches of depth in each box, just enough for the addition of one bench. The front of the boxes at the level of the main floor were not moved. This is a fact of importance in the present discussion of the Chestnut Street Theatre, for it suggests that the columns seen in Figure 35, the 1782 interior of the theatre, may well have been the model for the columns Richards designed for the Philadelphia theatre. A comparison of Figures 35 and 39 indicate this similarity.

It is impossible to determine what the dotted lines represent in Figure 30, the plan of the Covent Garden theatre at the level of the gallery. Nothing in the ground floor plan of the theatre (Fig. 29) suggests that these dotted lines in Figure 30 represent the original line of the boxes, and none of the earlier iconography of the theatre indicates such a possibility. Moreover, such an arrangement—whereby

\[42^a\] For orientation of the Covent Garden Theatre, see map of the theatre site (Fig. 35) and theatre plans (Figs. 29 and 30).

\[43^a\] Saunders, as cited above, and measurements obtained from late eighteenth and early nineteenth-century theatre plans, indicate that a seat-and-void dimension of 2 feet was standard during the period. See Appendix "C" of the present study for further discussion of this point.
the line of the boxes is inclined on an angle toward the center of
the stage—does not conform with the interior arrangement of any other
theatre of this or other periods. Typically, the auditorium of
eighteenth and nineteenth-century theatres was developed around the
circumference of a semi-circle or semi-ellipse, with the line of the
boxes either parallel to the outside walls of the theatre or inclining
slightly away from the center of the stage.

Saunders notes that "the original form of this theatre [Covent
Garden] was similar to the present theatre in Drury-lane. . ." Since
the Saunders document was published in 1790, the "present theatre in
Drury-lane" could only refer to the Adam version of the building
(1775), as altered in 1783 by William Capon.44 Figure 36 shows the
theatre as it appeared just prior to its final closing in 1791, one
year after the publication of Saunders' Treatise on Theatres. There
is certainly nothing in this print to suggest the arrangement shown by
the dotted line in the Covent Garden plan of the gallery floor. The
distinctive arrangement of the Adam galleries can be seen in the
Drury Lane drawing, but in all other respects it typifies what has
come to be thought of as the "Georgian playhouse." Of the Covent
Garden theatre which served Richards as a model for the Chestnut

Figure 36. Interior of the Adam Drury Lane, as it Appeared in 1721. Harvard Theatre Collection. OSUC Film No. 125-3.
Street Theatre plans, little more can be told, for materials relating to the old London theatre are scant.

The Chestnut Street Theatre Reconstruction. -- Before turning our attention toward the interior of the Chestnut Street house, however, a word must be said regarding Appendix "C" of the present study, for many of the conclusions in the present chapter are based on data presented in this appendix. Containing a conjectural reconstruction of the Chestnut Street Theatre, Appendix "C" consists of measured plans and elevations of the interior of the theatre and a detailed analysis of the methodology used in the development of this reconstruction.

Based on the Stine and Warren plans of the Philadelphia theatre, the reconstruction is structured upon principles of Georgian building and theatrical practice. John Foulston's plans for the Plymouth Theatre Royal[15] provide a complete and detailed record of theatre practice in the late Georgian period and have been used throughout the reconstruction to support and validate conclusions concerning the Chestnut Street Theatre. That Foulston's plans are representative of the practices of the period can be established by

[15] John Foulston, The Public Buildings Erected in the West of England (London: John Williams, 1835). Although the publication date is quite late, Foulston's Plymouth theatre was built in 1811-13, and plans for the theatre are from that date.
A comparison with descriptions and plates in Rees' Cyclopaedia; or, Universal Dictionary of Arts, Sciences, and Literature. Although the Cyclopaedia is undated on a volume-by-volume basis, thus making difficult the exact dating of references, Rees' work nevertheless provides information which corresponds with both Saunders' and Foulstons' descriptions of theatrical practice.

In several references in the Cyclopaedia, Rees alludes to "the late Theatre Royal in Covent Garden." Southern indicates that this allusion is to the Henry Holland version of Covent Garden, 1792-1808, rather than to the 1732-91 house. Therefore, it must be clearly understood that where Rees describes practices which are atypical of Georgian practice, these atypical practices must be ascribed to the Holland Covent Garden, rather than to the theatre which served Richards as a model.

46 Abraham Rees, Cyclopaedia; or, Universal Dictionary of Arts, Sciences, and Literature (Philadelphia: Samuel F. Bradford, 1806-1824). The work is in forty-one volumes, many of which appear to bear no pagination.

47 Richard Southern, Changeable Scenery (London: Farber and Farber, Limited, 1951), p. 216. Southern states: A diagram in the article in Rees' Cyclopaedia shows this method [i.e., the French faux châssis method of changing scenery] adapted to English procedure in 1811." Rees indicates that this highly atypical system of scene changing was employed at "the late theatre of Covent Garden." (Rees, Cyclopaedia, Vol. XII, no pagination. See entry for Dramatic machinery.)
The Auditorium: Passages and Stairways. --Turning now to the Chestnut Street Theatre of 1794, let us first consider the several features of the auditorium about which we have detailed information --the passageways and lobbies, seating arrangements, orchestra pit, and lighting facilities. Throughout the following explication, reference will be made to the Warren plans (Fig. 23 and 24) and the Stine plan (Fig. 25) of the theatre.

Upon entering the central entrance of the theatre--up the flight of marble steps in the center of the colonnade--the box patron found himself in a large lobby, shown in the Stine plan to be about 6 feet in depth by about 52 feet in length. This outer lobby was separated from the auditorium corridors by a control-wall, pierced by three doors. Entering one of these control doors, the patron found himself in an inner lobby about 6 feet 6 inches deep, extending the entire width of the main building; this inner lobby connected directly with the box passages and with the stairs to the upper floors at either end of the lobby. This arrangement is shown quite clearly in the Stine plan.

Saint-Méry described the corridors in the Philadelphia theatre--corridors which the Stine plan indicates measure 5 feet in width--as "large and commodious." By contemporary standards they
were: the passages to the boxes in the 1782 Covent Garden theatre, for example, measured about 3 feet 6 inches in width and were reduced by Richards' alterations to about 2 feet.

"Under the colonnade the left hand [and right hand] door leads to the pit," wrote Mease. The pit doors were acturally placed in the facade of the building in such a manner that the steps to the pit passage descended directly underneath the curved stairs in the lobby which led to the upper levels of the theatre. This relationship of pit door to lobby stair can be seen in the Stine plan (Fig. 25) and is detailed in Appendix "C", and in Plates II and IV.

Little specific information concerning the pit passages in the Chestnut Street Theatre is available. The Stine plan, together with the Mease description, locates the entrances to the pit. Figure 21, the 1794 interior view of the theatre, shows the doorways leading from the pit passage into the auditorium. These doors are located just below the third box in the first tier on either side of the auditorium.

The Auditorium: Pit Passage.--The characteristics of the passages through the nether-regions of the theatre can only be deduced from contemporary evidence of an analogous nature, for no
iconographic evidence of description represents the American pit passage of this period. Fortunately, however, there are several English examples of the pit passage. Figure 37 is a drawing of the pit passage in the Richmond Theatre, Surry, "made at the time of the theatre's demolition in 1887." Southern's description of this passage way is quite revealing, apparently based on other drawings from the theatre:

The passage here shown leads from a stair-foot in the front of the house, runs under the side boxes on the spectator's right of the auditorium, and has at its far end a door barring the public from the fascinating region under the stage . . . Turning off from this passage to the left, just before the door to the under-stage machine room, is the entrance to the front or deepest part of the pit, the floor of which would be reached up two or three steps.

Like the passage here described, the pit passage in the Chestnut Street house seems to have led from a stair-foot at the front of the house, passed under the side boxes, and opened into the pit at its deepest point. As in the Richmond Theatre, Surry, the floor of the pit in the Chestnut Street Theatre was reached by climbing a flight of steps. While not shown in the Stine plan of

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48 Southern, *The Georgian Playhouse*, p. 35, and Fig. 13. The Richmond Theatre was opened in 1765.

Figure 37. Pit Passage,
Theatre at Richmond, Surrey.
Southern’s *The Georgian Playhouse*,
p. 36.
the theatre, the steps are clearly visible in Warren's plan of the
ground floor. Whether or not a door opened off the passage into the
under-stage machine room of the Philadelphia theatre is problematical.

The substructural nature of the pit passage and its entrance
into the auditorium is made clear in Fig. 38, a print entitled The
Overflowing of the Pit, Drury Lane, 1771, for a performance of Much
Ado About Nothing, with David Garrick. In this illustration may
be seen the pit passage, with steps leading from the level of the
passage to the level of the pit. A ticket wicket appears at the foot
of the steps, on the left of the picture, and behind a spiked
barricade on the right may be seen what appears to be a marshal or
usher. At the top of the picture may be seen a heavy beam, which
supports the floor of the box above. Through the open doorway can be
seen a part of the interior of the auditorium.

In Figure 36, the interior view of Drury Lane, 1791, it may be
seen that the pit doors in that theatre were set into the front wall
of the boxes. Since the top of the pit door was on a line with the
floor of the box above—as illustrated in Figure 38—the box floor
in the box over the pit door must have been at least 6 feet to
6 feet 6 inches above the pit floor to allow head room through the

50 Raymond Kander and Joe Mitchenson, A Picture History of the
Figure 30. "The Overflow of the Pit."
Drury Lane, 1771. Mander and Mitchenson,
A Picture History of the British Theatre,
Plate 129.
door. This type of arrangement, in which the pit stairs ascended to a landing on a level with the pit floor, but under the side boxes, or rose up into a separate passageway, from which one passed beneath the boxes and into the pit, seems to have prevailed in the Drury Lane, Bristol, and Plymouth theatres, and may possibly have prevailed in Richard's Covent Garden.

From the evidence presented in the 1794 interior view of the Chestnut Street Theatre, however, it seems that a somewhat different arrangement was developed in the Philadelphia theatre. This view (Fig. 21) indicates that only a small portion of the pit door rose above the level of the pit floor. A stairwell must have existed, therefore, to permit adequate headroom through the door. This stairwell and the steps leading up from it into the auditorium, can be seen in Warren's plan of the ground floor (Fig. 23). A detailed drawing of this arrangement appears in Appendix "C", Plate II.

The Auditorium: Passages to the Upper Levels.--Of the Chestnut Street Theatre and the stairways to these passages, little is known. The Stine plan indicates that the stairs to the galleries and, presumably, to the third tier boxes were located in the west wing of the theatre, toward Chestnut Street. Moase, in describing the
theatre, wrote that "through the projecting wings or pavilions you pass to the stairs to the galleries," suggesting through the plural usage of "wing" that stairs were located in both the west and east wings of the building. The Stine plan fails to support such an arrangement, however.

The Warren plan does not record a stairway in the west wing of the building. A straight stairway is indicated in the east wing, however, strongly resembling the stairway arrangement in the south wall of the Covent Garden Theatre (Fig. 29, plan of Covent Garden), a stairway which led to the galleries.

I am inclined to believe that both the Warren and Stine plans are correct, showing stairway arrangements at different stages of the theatre building's development. In its first stage of completion, prior to the Latrobe additions in 1801, the arrangement of the Chestnut Street Theatre poses a problem: how was access provided to the gallery and the third tier of boxes? Following the lead provided by the Covent Garden and Warren plans, it seems reasonable to suggest that an external stairway satisfied this need. An alternate plan involving the placement of a stairway above the lobby-to-second-floor
stairs would be feasible, but so massive a structural element as this would probably have been retained throughout the lifetime of the building, had it ever existed.

A letter to the "Agents of the Trustees of the New Theatre, Philadelphia," from B. Henry Latrobe, dated July 7, 1806, sets straight the confusion between the Mease description and the Stine plan concerning stairs in the east wing of the building. Latrobe wrote to the agents:

. . . When the work at the theatre carried on under my direction ceased, [in 1804] the front [of the theatre] wanted the following articles toward completion. [Among these was Item 5,] the Eastern Gallery Stair [which stairs] follow exactly the plan of those in the West angle. 51

From this letter we learn that the east gallery stairs were not completed in the Latrobe work on the theatre. There is no later evidence to suggest that the stairs were ever completed, other than the Mease account, and the Stine plan would suggest that Mease was in error, for clearly the east gallery stairs had not been completed in the 1816-20 plan of the theatre.

51 Wollock, p. 104.
The Auditorium: Boxes.--Passing through one of the access corridors, the box-patron entered his box. Described by Saint-Méry as "papered in tasteless red paper," and by the reporter for the New York Magazine as "lined with a pink colored paper, with small dark spots," these boxes measured about 6 feet 6 inches in width by 5 feet 6 inches in depth. Each side box contained "two rows of benches," and would seat "four people in each row."52

Scattered throughout the Warren letters are frequent references to the benches in the boxes, and examination of Georgian theatre plans and views indicates that the use of benches in the boxes as well as the pit and gallery was standard practice throughout the Georgian and Regency periods. Therefore, it is surprising to note the representation of chairs in the side boxes in Joseph Jackson's view of the Chestnut Street Theatre interior (Fig. 22). This view represents the only evidence I have found which suggests the use of chairs. In view of the weight of evidence to the contrary--both in contemporary iconographic sources and in Chestnut Street Theatre

52From the Saint-Méry description of the interior,
materials—it can be concluded that Jackson indulged in considerable artistic license in the preparation of this drawing.\footnote{53}

There is evidence that the box benches in the second Chestnut Street Theatre were upholstered, for in a letter to Henry, William Warren wrote, "as soon as the boxes are painted send for the upholsterer and let him begin to cover the benches."\footnote{54} Whether padding was used in the 1794 theatre is problematical. It probably was not, for in the Warren letters are to be found frequent references to re-painting the benches. Moreover, the expense of padding or upholstering the benches must have been formidable, and certainly during the early years of their management, Warren and Wood could not have afforded such a luxury.

In order to make the front boxes—those at the rear of the auditorium, facing the stage—more attractive, the managers of the theatre "rendered all the front boxes private"\footnote{55} in 1801. Figures 23

\footnote{53}Iconographic evidence from the 1775, 1792, and 1812 Drury Lane theatre, and from the Covent Garden theatre of 1809 indicates that benches were used in the side boxes of these theatres. Murray and Mitchenson, Plate 196, present a view of Drury Lane after 1814, showing side boxes with chairs. These, however, were probably provided especially for the regent and the Royal party, seen occupying them, for other prints from this theatre during the same period indicate the use of benches.

\footnote{54}Warren Letters, Washington, September 10th, 1823.

\footnote{55}Article in The Gazette of the United States, October 20, 1810.
and 25, respectively the Warren and Stinc plans of the ground floor of
the Chestnut Street Theatre, indicate the curious and decidedly
atypical arrangement which provided this privacy. The front boxes,
which were about 14 feet 6 inches deep, were divided laterally on the
east-west axis, 6 feet back from the front of the box--by a low
partition. Running through each large box, from front to rear, was a
passageway about 18 inches wide, so that the "five [boxes] facing the
stage," which Saint-Méry saw in 1794, became in fact nine boxes--five
small boxes in front, backed by four larger boxes. With a depth of
six feet, the front portion of these divided boxes must have contained
three benches per box, 56 while the rear portion contained four. 57

The separating partitions were evidently quite low, for we
read in the Gazette:

In order to preserve peace and to prevent the
interruption of view which those must otherwise
sustain who are placed in the back seats [of the front
boxes], it is necessary that the passages which
separate the two sets of front boxes should not be
obstructed. It is hoped, therefore, that gentlemen
will not be offended at being informed that no person
can be permitted to remain there during the
performances. 58

56 See n. 43, p. 125.

57 Saint-Méry cited seven rows of benches in each box. In 1801
the term "box," when applied to the front boxes, must be understood to
include both the front and rear portions of each divided box.

58 The Gazette of the United States, October 20, 1801.
No matter how kindly contemporary accounts spoke of the Chestnut Street Theatre's seating accommodations, by modern standards the benches in the boxes, pit, and gallery must have been extremely uncomfortable, especially as they had no backs.

The Auditorium: Orchestra Pit.—Seating provided for the musicians was still worse than that provided the patrons. According to Saint-Léry who wrote the only account, the orchestra pit held thirty musicians, "in two rows facing each other," or fifteen musicians in each row.

This arrangement seems to represent a transition in orchestra seating. Iconography of the Georgian period suggests that in the early English theatres of the period, musicians sat on a single bench facing the stage. Toward the end of the eighteenth century, the arrangement found in the Chestnut Street Theatre appears to have enjoyed a brief vogue in English theatres, but by the end of the first decade of the nineteenth century, seating such as we find in modern orchestra pits contained the musicians, frequently in pairs, sitting at right angles to the stage.

Figure 10, the interior of Covent Garden theatre as it appeared in 1763, illustrates the orchestra seating of the earliest period. Figure 39 illustrates a similar arrangement and provides greater detail than the former print. This satirical print, which shows Kemble as Macbeth on the stage of the new Covent Garden theatre
Figure 39. Kemble as Macbeth, during the O.P. Riots at Covent Garden Theatre, 1809. Harvard Theatre Collection. OSUNC.
during the O.P. Riots of 1809, illustrates quite clearly the bench on
which the musicians sat, the single music rack, fastened directly into
the facing of the stage, and the pit lighting "instruments," crude
candlesticks with open candles.\textsuperscript{59} While the artist has shown an
interesting view of an old orchestra pit, he has failed to represent
accurately the pit of the 1809 Covent Garden theatre, and Figure 40
is submitted to present the interior of the theatre as it actually
appeared in 1809. In the pit may be seen two rows of musicians,
arranged face to face in the manner which Saint-Véry described in
Philadelphia.\textsuperscript{60}

During the Regency, the system of seating the orchestra
members in long rows parallel with the stage and facing one another
seems to have given way to the arrangement which we see in modern
theatres where the musicians sit at right angles to the stage. This
arrangement can be seen in many of the prints of the interior of Drury
Lane, 1812 and after.

Changes in lighting the orchestra pit seem to have followed
the changes in seating arrangement, and during the Regency we begin to
find the candle and candlestick being replaced by metal reflectors,
mounted directly on the separate music stands. It has not been

\textsuperscript{59} OSUTC F. 1443\textsuperscript{*}.

\textsuperscript{60} OSUTC F. 1443\textsuperscript{*}.
Figure 40. Interior View of Covent Garden Theatre as It
Appeared in 1809. Harvard Theatre Collection. OSUTC Film No. 1443*.
possible to determine the origins of this lighting instrument, but by 1845 it was definitely in use in both England and America. Figure 41, showing the orchestra pit and interior of Drury Lane as it appeared after 1814, provides an excellent view of the candles and reflectors used to light the music stands.  

Figure 42, showing a print probably dating about 1845, shows part of the orchestra pit with musicians at an unidentified American theatre. From the context of the chapter, which the humorous print precedes, it may be deduced that the pit represented is that of a small provincial theatre. Here, as at the Drury Lane theatre, we find a metal reflector behind a candle, mounted directly onto the music stands.

A final comment must be made of the Darley print (Fig. 42). The use of stools in the pit, as illustrated in this print, seems to

61Hander and Mitchenson, Plate 196. See also n. 53, p. 140. Although no information is provided on the drawing, two factors make dating of this print possible. Kean appeared at Drury Lane from 1796 through 1803, and returned again in 1814. The interior which appears in this view of the theatre (Fig. 42) clearly does not represent the old theatre. The new theatre, built in 1812, did not have proscenium doors as originally constructed; these doors were added about 1814. The combination of Kean and proscenium doors, in the same print, establishes the date of the print.

62Sol Smith, Theatrical Apprenticeship (Philadelphia: T.B. Peterson, 1845), p. 164. The drawing is signed "Darley," but it is virtually impossible to identify the artist beyond this. The work may have been executed by Felix O.C. Darley, who was born in 1822 and rose to prominence about 1850, or may possibly have been done by John C. Darley, of Baltimore.
Figure 41. Edmund Kean as Richard III, at Drury Lane Theatre, before the Duke of York, the Prince Regent, and the Duke of Wellington, ca. 1814. Harvard Theatre Collection. OSUFC Film No. 1443*.
Figure 42. Pit Orchestra in an Unidentified American Provincial Theatre. Drawn by "Darley," ca. 1845. Sol Smith's Theatrical Apprenticeship, p. 164.
be quite atypical. While none of the Warren letters mention the orchestra pit in the first Chestnut Street Theatre, a letter to Henry Warren in Philadelphia from his brother William, dated Baltimore, October 30, 1829, reveals the trend in orchestra seating arrangements at that date:

I will not encumber myself with a heavy debt if I can avoid it. I wrote to Mr. Peters to that effect about a chair for the orchestra. You must bear in mind the musicians cannot sit on a seat so many hours without a back to their bench to support them. Those gentlemen [the musicians] know nothing [sic] of our business, and between ourselves, are apt to forget the expense they run us to, particularly as they pay nothing for it. Still, if you think it will be an improvement you may order such a chair to be made by [the] bencher, but it must have a back [sic]. The orchestra has been a perpetual torment to me yet I have to bear it.

The Auditorium: Lighting.—Seated in his box, waiting for the evening's performance to begin, the patron of Wiegell and Reinagle's establishment had a difficult time making out the faces of his friends in the opposite boxes, for the lighting of the auditorium in the Chestnut Street Theatre was at the same time uncomplicated and inefficient. When the theatre opened, the auditorium was lighted, according to one observer, by

... small four-branch chandeliers placed in every other box beginning with the middle of the second on each side, so that the upper rail of each
tier of boxes has seven. Each hangs on an S-shaped gilded iron bracket. 63

The reporter for the New York Magazine presented a slightly different description, however, reporting that the theatre was lighted by a "profusion of glass chandeliers." 64

Neither the "small four-branch chandeliers" nor the "profusion of glass chandeliers" appears in the drawing of the interior of the Chestnut Street Theatre (1794, Fig. 21), but this is not too surprising, for an examination of the iconography of the eighteenth-century theatre indicates that details like lighting fixtures were omitted in drawings and engravings as often as they were included. 65

Saint-Véry and the New York Magazine reporter described the same lighting fixture, a small four-branch chandelier hung with swags of glass. The fixture was recorded by Joseph Jackson in his 1798 view of the theatre's interior (Fig. 22). The fixture is remarkably undistinguished, and fixtures like it can be found in the iconography of many of the London and provincial English theatres of the period. At first glance, the drawing appears deceptive, for the

63 Hewitt, p. 39, from the Saint-Véry account of the Philadelphia theatre.

64 April, 1794.

65 The Nixon watercolor (Fig. 26) and the 1787 Royalty Theatre drawing (Fig. 27), for example.
chandelier appears to hang from the center of the auditorium. Study of the drawing has revealed a second chandelier to the right of the first, however; these fixtures clearly hang from the upper part of the first-tier boxes.

From the position of the chandelier and the curve of the box rail, it can be established that the Jackson view is drawn from the vantage point of the fourth box. Through the columns to the right can be seen the second chandelier, mentioned above. According to the Saint-Mary report, the chandeliers were placed "in every other box beginning with the middle of the second on each side," an arrangement which positively establishes the central box in the Jackson view as the fourth box on the east side of the theatre. This identification is further confirmed by the Stine plan, which indicates that the curve of the auditorium began at the rear of the fourth box; this curve is plainly indicated in the Jackson drawing.

The relationship of the chandelier to the box, clearly seen in the Jackson drawing, mitigated against the lighting fixture, providing much illumination for the interior of the boxes—especially in the deep front boxes at the rear of the auditorium. Evidently these small, four-branch chandeliers remained in use, unsaugmented by other
fixtures, until 1807. In the Philadelphia Gazette for December, 1806, we find a letter from a subscriber which reads, in part:

I beg, however, to submit to your attention... to light up the back of the lower and upper front boxes. Obvious reasons, without particularizing them, point out the necessity of this improvement. In their present darkened state, few decent women would choose to sit in them; and the morals of our young men are not much improved. By also doing this, you would considerably add to the elegance of the tout ensemble of the interior of the house and give satisfaction to many.66

Whether this letter was responsible for the addition of two large chandeliers on either side of the stage cannot be determined, but in December, 1807, Belf's Philadelphia Gazette and Daily Advertiser reported:

During the late recess, the Managers have evinced both their taste and liberality by numerous declarations [sic—obviously a misprint for "decorations"] of the interior of the theatre. The area of the boxes now presents to the eye of the spectator a pleasing diversity of light and shade. It is brilliant without being gaudy; and neat without being too simple. The addition of a brilliant glass chandelier at each side of the stage, is at once pleasing to the audience and of advantage to the performers.67

The precise placement or design of these chandeliers on either side of the stage cannot be known. The phrase "at each side of the stage" (the italics are mine) is not without significance, however,

66 December 23, 1806.
67 December 10, 1807.
for it indicates a conformity to the contemporary English practice of placing a chandelier just downstage of the proscenium doors, to cast light onto the forestage and into the auditorium. Lighting brackets in this position can be seen in Figure 27, the 1794 interior of the Royalty Theatre; in Figure 36, the interior of Drury Lane, 1791; in Figures 39 and 40, views of the interior of Covent Garden, 1809; and in Figure 43, the view of the Royalty Theatre as it appeared at the height of the Regency in 1815.68

The auditorium of the Chestnut Street Theatre, when it opened its doors to the public in 1794, was lighted by candles. Sometime between 1806 and 1816, oil was probably introduced into the theatre as a source of illumination. The Argand oil lamp, with its greatly improved illuminating qualities, was in use in America at least as early as 1793, and may well have found its way into the Philadelphia theatre.69 William Warren, in a journal entry for 1812, complained bitterly of the increased cost of spermacetti oil brought on by the

68. The method of lighting the forestage illustrated in above Figures marks a radical departure from the mid-Georgian method of lighting, in which a hoop-like chandelier of candles was hung directly over the forestage, as in Figure 10, the Covent Garden theatre, 1763.

69. McNamara, pp. 127 and 128, indicates that the Charleston theatre, opened in 1795, had a stage 56 feet in length, "the front circular, with three rows of patent [Argand] lamps." These lamps, invented by Aime' Argand about 1780, employed cylindrical wicks which ensuring better combustion of fuel and greater brilliance in illumination.
blockade of American ports during the hostilities of 1812, a complaint
which suggests the use of oil in the Warren and Wood theatres.

Whatever the specific nature of the oil lamps in the Chestnut
Street Theatre, it appears likely that lighting in that establishment
represented no significant deviation from standard lighting practice
in English and American theatres during the Georgian period. In 1816,
however, Warren and Wood installed gas in the auditorium of the
Chestnut Street Theatre, marking the pioneer effort at bringing a new
era of lighting to the United States.70

The Auditorium: Gas Lighting.--A general history of gas
lighting is beyond the scope of this study. However, since this
illuminant had such an impact on theatrical lighting and since the
Chestnut Street Theatre was the first American theatre so lighted, a
brief account of the illuminant is given to acquaint the reader with
the general development of gas as an illuminant and to chronicle the
introduction of gas into the Philadelphia theatre. "So long ago as
1739," wrote Thomas Cooper in 1816, "is recorded a paper, exhibiting
an account of some experiments made by Dr. James Clayton, from which

70 There is no evidence to suggest that gas was used in lighting
the stage of the Philadelphia theatre, although it appears possible
that gas was used in footlights about 1821.
it appears that the inflammable nature of coal-gas was then already known.\footnote{Thomas Cooper, \textit{Some Information Concerning Gas Lights} (Philadelphia: John Conrad, 1816), p. 32. Cooper's work is introduced into the present study as the most authoritative early American source on the subject of gas lighting.} It was not until 1792, however, that the use of coal-gas as an illuminant was attempted by Murdoch, in England. In 1798, Murdoch attempted gas lighting on a grand scale, illuminating the Soho Foundry for a number of nights with this fuel. Various experiments were carried on during the following years, and Cooper reports that by 1806-07 "the application of gas light" in England had "spread rapidly, and numerous manufactories and other establishments" had been lighted by gas.\footnote{Cooper, p. 39.} In 1815, gas was first used to illuminate a London theatre (the Olympic) and was introduced into Drury Lane in 1817.

Early experiments in America seem to have begun about 1800:

I was informed at Northumberland in Pennsylvania, by a Mr. Henfrey, I think, about the year 1800, that he was going to Baltimore to exhibit a new method of lighting the city, by what he termed a \textit{thermo-light [sic]}, and I understood he did there exhibit a very brilliant light procured from coal [gas]. In October, 1802, Henfrey wrote to Dr. Mease [James Mease, of Philadelphia] on the subject, giving an account of the plan, and a drawing of his apparatus, which was extremely simple . . . too simple for the use of public buildings. . . . in the same winter Dr. Mease
read a memoir of gas lights in Philadelphia, and exhibited the gas produced from red cedar.73

The history, if not the details, of the installation of gas at the Chestnut Street Theatre is spelled out in a series of entries from William Warren's Journal. These entries are presented below:

**Thursday, 11 July, 1816:** "Saw Archy McCall att. lighting the Theatre with Gas [sic]."

**Monday, 22 July, 1816:** "I am making arrangements with Dr. Kuhlner to light the theatre next season [that is, the fall season of 1816] with Gas."

**Thursday, 1 August, 1816:** "Presented a request to the proprietors [sic] to be permitted the privilege of putting a furnace up in the vacant lot of the Theatre to make the gas . . . ."

**Friday, 27 September, 1816:** "Signed Bonds with Doctor Kuhlner relative to the gas lights. . . . give him a note for $200 - at 2 month from Oct. 1st. . . . ."

**Friday, 22 November, 1816:** "... at day break leave French town--arrive in Philadelphia at 3 p.m. --in the evening saw the Theatre lighted with gas --very fine."

The story is taken up at this point by Charles Durang, whose information concerning the early attempts at gas lighting warrants inclusion in this discussion of lighting at the Chestnut Street Theatre. Durang states:

The Chestnut street theatre [sic] opened this season on Monday evening, November 25th, 1816. During the recess, an improvement had been introduced in the method of lighting the theatre. On the 15th of May,

73Cooper, pp. iii-iv.
in this year, the first gas lights ignited in America were burned at Peale's Museum, in the State House, in this city. The manufacture was, after many experiments, so perfected by Dr. Kughler, that the gas was in a fit state for effective use. The fixtures and the general apparatus were put up by Wm. Henry, who had then lived at No. 200 Lombard street [sic]. Henry put up a gas apparatus at his house, being the first private house thus illuminated in this country, and he invited the Mayor and City Councils to call and examine the process and effects. But the Mayor and Councils were fifteen or twenty years behind the times, and for a long period afterward in Philadelphia the only gas lights were those at Peale's museum, the Chestnut Street Theatre, the Masonic Hall, Mr. Henry's residence, and a tavern, on 4th Street, we believe, called the Gas Light Hotel. In reference to their attempt to introduce this mode of illuminating the theatre, Messrs. Warren and Wood, in the bills of the opening night, said: "The theatre is to be hereafter entirely lighted with gas lights, established under the inspection and control of Dr. Kughler. The managers are happy to be the first to introduce this system of lighting theatres in America, and flatter themselves that its superior safety, brilliancy and neatness, will be satisfactorily expressed by the audience."

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The Auditorium: Gas Lighting Equipment.—Today, when we think of installing gas in a house or building, we think in terms of making a connection from the city gas main to the gas meter in a building. The origin of the gas supply is seldom considered. But the introduction of gas lighting into a building of the second decade of the nineteenth century was no such simple matter, for in addition to

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7th Durang, Vol. I, Chap. LIV, p. 114. As we have seen in Cooper’s work, Durang is in error in stating that “the first gas lights in America were burned in Peale’s museum,” although this may well have been the first building so lighted.
having to develop a complete system of tubes for conveying the gas throughout the building and burners for providing illumination, a gas generator had to be created also, for at this early date there existed no public gas works. In order to understand the magnitude of Warren and Wood's decision to illuminate the Chestnut Street Theatre with gas, let us consider both the gas-generating mechanism and the lighting equipment within the theatre building.

On August 1, 1816, William Warren presented a "request to the proprietors [sic] to be permitted the privilege of putting a furnace up in the vacant lot of the Theatre to make the gas." This request was evidently granted; the Stine plan of the Chestnut Street Theatre and its adjacent buildings (Fig. 25) shows the furnace in the north-west quadrant of the property, just west of the privy. Although not specified in the request, Warren must have requested at the same time permission to construct a building to house the gasometer, or accumulating tanks, for no early gas system could operate without them. The gasometer building (gas house) is also to be seen in the Stine plan, located just to the south of the furnace building.

Early gas systems were as ingenious as they were simple. Only three elements were needed: a generating furnace, tanks to pressurize and store the gas, and a pipe system to transport the gas from the generator to the pressure tank (gasometer) and from the gasometer to the building to be serviced. An examination of the functioning of
each of these elements in turn should serve to explicate the entire
system. Throughout the following discussion the reader is referred to
Figure 44, a sectional view of a gas generating apparatus as it
appeared in 1816.75

The generating furnace consisted of nothing more than a
retort, placed within an air-tight oven or furnace. In Figure 44,
this furnace and retort complex are represented by the letters (AA),
(B), (D), (C), (4), and (9), in which (AA) is

... an iron retort, about three feet long,
and two feet diameter, open at the end (B), to which
is secured, by means of a flaunch [screw-flange] a
door-piece; to this the door (D) is applied, and is
shut close by a screw (9), applied to the center.76

A quantity of coal, determined by the number of lamps to be
lighted, was placed into the retort; the door was dogged shut by
means of the screw-flange, and was "luted [sealed] tight with a lute
of clay and sand."77 A fire was then built in the fire-box (4), and
the coal within the retort, heated to near incandescence, gave off
"hydrogenous gas, or inflammable air"—literally, coal-gas.

Coal was not the only gas-producing agent in use, however,
although it was by far the best. Dr. Kughler, the same Kughler who

75 Cooper, p. 155.
76 Cooper, p. 162.
77 Cooper, p. 162.
Figure 44. Gas Generating Apparatus, ca. 1815. Cooper's
Some Information Concerning Gas Lights, p. 155. Ohio State University
Rare Book Collection.
supplied gas to the Chestnut Street Theatre, experimented about 1816 with pitch as a gas-producer. His right to patent the process was hotly contested by Cooper, however, who cited prior experiments in 1815 carried out by John Taylor, of Stratford, Essex, England:

He [Taylor] has invented an apparatus for the purpose of producing an inflammable air, or olefiant gas, fit for yielding light of great brilliance, and free from any disagreeable smell from any kind of animal, vegetable, or mineral oil, fat, bitumen or resin [sic] which can be rendered fluid by heat or otherwise.76

It must also be recalled that Dr. Pease generated gas in 1802 by the heating of red cedar.

Coal was the most favored gas-source, however, both in England and in America. The reasons for this popularity were twofold. Coal was extremely plentiful, both in the United States and abroad.

Furthermore, the extraction of gas from coal left as a residue in the retort substantial quantities of coke, an excellent fuel which could be burned in the furnace below the retort to generate additional gas. According to Cooper, forty pounds of coal was sufficient to supply gas to fifty flames for three hours, providing light equivalent to that produced by fifty candles molded at six to the pound. The coke

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76 Cooper, p. 190. "The description may be found in the Monthly Magazine for February, 1816, and the drawings are given in the Repertory of Arts," wrote Cooper. The article contributes nothing to Cooper's description of Taylor's process, a description which is obviously taken from the magazine article. I have been unable to examine the Repertory of Arts which Cooper cites.
residue from forty pounds of rendered coal was about twenty-eight pounds, and with the addition of only a little raw coal to the furnace, the gas-furnace was virtually a self-sustaining unit.

Whatever the gas-producing agent, it was heated in the retort until it produced its "hydrogenous gas." This gas traveled from the retort, via a cast iron pipe, to the refrigeratory. In Figure 44, the transfer pipe is indicated by the letter (k). The refrigeratory, literally a condenser is indicated by the letter (k). In the refrigeratory, which was cooled by water from the well in which it lay, solids condensed out of the gas. These condensates were drawn off from time to time through the pipe (l). According to Cooper:

(N) is a pipe which conveys the gas from the vessel (k) the refrigeratory to the top of the cylindrical vessel or receiver (P); this receiver is air-tight at the top, and consequently the gas displaces the water in the vessel (P), to a level with the small holes made round its inferior edges, where the gas is suffered to escape, and rises in bubbles through the water of the well into the receptacle or gasometer (M,K,K,N,M). 79

The gasometer, which was made of wrought-iron, was counterbalanced by the weights (p), which were supported by the chain (M,n,m,n,n,W), which passed over the pulleys (n,n). The gas, escaping from the transfer pipe (N), entered the gasometer (M). Here the gas, under pressure from the buildup of gas in the retort and refrigeratory,

79 Cooper, p. 156.
displaced the water in the gasometer, causing the delicately counter-balanced gasometer to rise and thus permitting a steadily increasing volume of gas to enter the gasometer. The weight of the gasometer slightly exceeded that of the counterweight, so that it was constantly exerting a slight downward force on the gas, causing the gas to be constantly under pressure. When a flow of gas to the burners was needed,

... by taking one or more weights off the balance, the gasometer will bear with so much the greater force on the volume of gas contained in it, by which it [the gas] will be propelled through the pipes to any distance, and in any direction, to the burners, which are situated where the lights are wanted. 80

The gas flowed from the gasometer (M) to the burners via pipes (Y). 81

There is, of course, no way of knowing whether it was precisely this kind of gas apparatus that Dr. Kugler utilized in the Chestnut Street Theatre, but the equipment described by Cooper was in no way extraordinary, representing, according to Cooper, the principal, if not the exact, device employed in the generation of gas during the first decades this illuminant was in use. It is entirely

80 Cooper, p. 163.

81 To avoid confusion, it should be noted that (V) represents wrought-iron bracing within the gasometer, while (R) represents the beam which supported the weight of the gasometer and its counter-balancing system. (9) is the flue which carried off smoke from the furnace.
reasonable; therefore, to assume that Hughler's gas works for the Chestnut Street Theatre closely resembled that described by Cooper.

Neither is it possible to determine the type of burner—or lighting fixture—used in the Philadelphia establishment. Here again, however, we are assisted in our inquiry by the fact that so early in the use of gas, only two or three types of burners were in use. By 1808, the Argand principle of aeration had already been applied to the new illuminant. 82 Murdoch presented a paper to the Royal Society in that year, in which he described in detail the burners (lighting fixtures) which he had installed in Lee's Cotton Mill, Manchester, England:

The gas burners are of two kinds: the one is upon the principal [sic] of the Argand lamp, and resembles it in appearance; the other is a small curved tube with a conical end, having three circular apertures or perforations, of about a 30th of an inch in diameter, one at the point of the cone and two lateral ones, through which the gas issues, forming three divergent jets of flame, somewhat like a fleur-de-lis. The shape and general appearance of this tube has procured it, among the workmen, the name of cockspur burner. 83

Cooper discusses two types of burners presumably employed in

82 See n. 69, p.

83 Cooper, pp. 39-40. This cockspur burner, because of the configuration of the flame emitted, was also known as the fish-tail burner.
America, and provides a little detail concerning the control of gas to these burners:

The burners are formed in various ways, either by a tube ending with a simple orifice, at which the gas issues in a stream; and, if once lighted, will continue to burn with a steady and regular light, as long as any gas is supplied. At other times a number of very minute holes are made in the end of a pipe, which forms as many jets de feu, and have a very brilliant appearance. 85

Control was obtained in a very simple and direct manner:

The burners are fitted with keys, by which each separate flame may be regulated to give more or less light at pleasure, or be instantly extinguished; and the whole (be there ever so many) may be regulated as to the size of the flame, or they may be instantaneously extinguished by turning a key in the main tube. 85

Which type of burner was used in the Chestnut Street Theatre is problematical; and no specific evidence remains to solve the problem. A clue to American burners in use is provided in Cooper's book, however. Figure 45 is a drawing from Cooper's work, showing the exterior of a gas works as it appeared in 1816. In the Cooper drawing this view is designated Figure 1. 86 It is Cooper's Figure 2 (in my Fig. 45) that concerns the present question of lighting fixtures, for this inset detail provides what may well be the earliest

84 Cooper, p. 157.

85 Cooper, p. 162.

86 For purposes of identification, I have retained Cooper's numbering in referring to the two parts of this plate.
specimen of an American gas-lighting fixture. Cooper describes the
detail as

Fig. 2. P. The form of the burner from which the
gas issues, with the tube glass, and key to regulate
the flame, (on a larger scale.) 

Assuming that the artist has represented the characteristic of the
flame accurately, it may be deduced from the detail in Figure 45 that
the burner shown is nothing more than an open tube, with a glass
chimney for safety. Clearly the flame in the drawing does not suggest
the fleur-de-lis-shaped flame characteristic of the cockspur
(fish-tail) burner.

**English Influences on Gas Lighting at the Chestnut Street Theatre.**—It has not been possible to establish a direct relationship
between the use of gas in London and the introduction of gas into the
Philadelphia theatre by Warren and Wood. English precedent existed
nearly a year before Warren began negotiations with the stockholders,
however, and it is reasonable to assume that Warren must have had
knowledge of the London experiments, so extensive was the exchange of
news between England and America.

Two London theatres used gas lighting prior to 1816. Gas was
introduced into Covent Garden theatre in September, 1815. The

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87 Cooper, p. 162.
playbill for September 11th announced that "the exterior, with the
Grand hall and Staircase, will be illuminated with Gas." On October
30th of the same year, the Olympic Theatre became the first theatrical
establishment in England to light its auditorium with the new
illuminant. The playbill for October 30th proclaims, "the exterior,
the Saloon, and part of the interior, will be lighted with gas."
Public and journalistic reaction to the new lighting was excellently
favorable, although there was a slight concern that the new lights
might prove too bright.

Using once again the "rule of probability," it is more
plausible to suppose that the financially cautious team of Warren and
Wood should install gas in their theatres after learning of the
success of the illuminant in London theatres, than to suppose
that—especially in the face of only mild public reaction to gas
lighting in Philadelphia experiments—the managers would undertake so
expensive an installation without precedent for success. 88

The Auditorium: Forestage and Proscenium.—Having
digressed somewhat by exploring the gas house and its equipment, the

88 The expense of the gas installation in the Philadelphia
theatre is not known, although it would appear that Dr. Kughler was
paid at least $900 for his services. Some idea of the expense of the
equipment may be gained from Warren's Journal entry for 5 July, 1847,
in which he recorded that for the Baltimore theatre "the gas lights
have carried a heavy addition to our expenses - the fixing of the pipe
cost $2500," a figure which does not include the expense of the
generating equipment.
writer returns to the theatre interior, from the vantage point of the box patron. Before the commencement of the evening's entertainment, the view to the stagehouse is blocked by a green baize curtain, a curtain to be found in virtually all of the theatres of the period. Immediately downstage of this curtain is a large forestage--about 12 feet deep on the center line, and 36 feet wide between the boxes--flanked by a single proscenium door and proscenium balcony on either side of the stage. "The sides of the forestage represent the facades of handsome buildings, but they face too much toward the stage so that they interfere with [prevent] the view [of the doors] from the side boxes," wrote Saint-Méry. The iconography is curiously at odds with Saint-Méry's description, for both the New York Magazine and Jackson views of the theatre's interior (Figs. 21 and 22, respectively)

89Professor Hewitt states that "those who flocked to the opening of the Philadelphia theatre, 17 February, 1794, saw a handsome act drop, instead of the green curtain of the Southwark and John Street [theatres]. . . ." I have found no contemporary evidence which supports Hewitt's statement. The term curtain is used in several of the Chestnut Street prompt books, but nowhere have I found the term act drop used in such a manner to suggest that this device was used to open and close a performance. From Durang (Vol. I, Chap. XIX, p. 35) comes the information that "Mr. Richards, the brother-in-law to Mr. Wignell, presented to the latter . . . a superb act drop, used between the acts of the plays." (The italics are mine.) The practice of using an act drop between the acts of a piece is completely in accord with theatrical practice of the period, and Southern (Changeable Scenery, p. 168) indicates that in some theatres--especially those which were small and impetuous--the green baize curtain served the double function of opening and closing the performance as well as marking the division of the acts.
Indicate that the side of the proscenium and the proscenium doors were virtually undecorated, closely resembling those found in the Covent Garden theatre of 1763 (Fig. 10).

It is possible that the two views of the theatre are incorrect, that detail has been omitted from the representation of the proscenium, and that the Saint-Méry description is accurate. This line of speculation is made appealing by the knowledge that Richards based the Chestnut Street Theatre design on the Covent Garden theatre and that Saunders attacked Richards' treatment of the Covent Garden proscenium on what appears to have been the grounds that it was too ornate. The Chestnut Street house may well have had the same ornate proscenium treatment that the Covent Garden theatre enjoyed, a treatment omitted from the interior views. Of the Covent Garden theatre, Saunders wrote:

The frontispiece [proscenium]\(^{90}\) is such an [sic] one as no architect would have applied. Were a painted frame to be proposed for a picture, how would a connoisseur exclaim! The scene is the picture, and the frontispiece, or in other words, the frame should

\(^{90}\)The use of the word "frontispiece" is really quite misleading, for what Saunders is actually objecting to is the proscenium, literally ". . . The wall itself in which the [proscenium] door and balcony were situated, . . . the whole surround of the stage," not the small inset into the proscenium which is a frontispiece. From the article by Phyllis Hartnoll, (quoted from Oxford Companion to the Theatre, ed. Phyllis Hartnoll, 2nd. edition [London: Oxford University Press, 1957], p. 635).
contrast the picture, and thereby add to the illusion.\textsuperscript{91}

Here Saunders seems to be suggesting that a carved or ornamented proscenium (frontispiece) is as inappropriate to the plastic qualities of actor and scenery as a painted frame might be to the flat qualities of a painting. He spells out his objection to relief in the proscenium in another part of his treatise:

By an attentive observation we shall find that the massy columns and pilasters, together with the many ornaments accompanying them, engage the eye from the scenery, and occasion it the scenery to have a comparative littleness. I could not but remark in a theatre where the finishings are plain and continued to the scene, the grand effect that [the scenery] produced, particularly of the architectural kind.

\ldots A division is necessary between the theatre and the stage, and should be so characterised as to assist the idea of there being two separate and distinct places.\textsuperscript{92}

Since Richards is known to have had a bent in the direction of an ornamented proscenium, it is reasonable to speculate that a similar treatment may have been applied to the Chestnut Street Theatre, lack of supporting iconography notwithstanding.

Above each of the proscenium doors, which were raked somewhat from the perpendicular, was a practical balcony, built the width of the proscenium door and to the height of the second tier boxes. Like the stage balconies of the Restoration and the early Georgian periods,

\textsuperscript{91}Saunders, p. 84.

\textsuperscript{92}Saunders, p. 36.
these balconies in the Philadelphia theatre appear to have been used in the stage "business," and as late as 1817 we find the proscenium doors and their balconies in use:

The stage doors in the proscenium, and the balcony windows over them, were, in the olden days [that is, in the days of the first Chestnut Street house] used in the practical incidents of the play. Often have we seen Ranger, in The Suspicious Husband, ascend the rope ladder into one of the above windows [balconies]. 93

Conclusions.—From the front doors of the theatre to the proscenium doors flanking its stage, the Chestnut Street Theatre was clearly English. Conceived by John Inigo Richards as a model of the Covent Garden theatre in which he worked, the auditorium of the Philadelphia theatre—the lobbies, stairway and passageway arrangements, and the general form and arrangement of the seating area—would have held no mysteries for an English patron of the period. Plan and decor of the New Theatre in Philadelphia, from facade to footlights, were consistent with London and English provincial theatres of similar size, and deviations from the English style and manner were slight.

93 Durang, Vol. I, Series I.
The Chestnut Street Theatre, as seen by the public--its exterior, auditorium, and general facilities--has been thoroughly examined. Next, those areas forbidden to the public--the stagehouse, stage flies, and trap areas--are explicated.
CHAPTER IV

THE STAGEHOUSE AND STAGE MACHINERY

Seldom in the chronology of the theatre's history do we encounter ideas which leap fullblown on the stage of theatrical and dramatic practice. Typically, theatre history records the gradual evolving of an old idea or practice into a new form. The writings of Nicola Sabbattini, for example, reflect both the past and present practices of the Italian Renaissance, the Covent Garden Inventory of 1743 reflects Restoration as well as Georgian staging practices, and with the introduction of electricity for the stage, we find not a new method or theory of lighting but merely the introduction of a new and brighter illuminant.

Therefore, in examining the stagehouse and stage machinery of the Chestnut Street Theatre, we must pose three questions. Does this stage reflect English practice, thereby representing a point on the English continuum of theatre history, or does the stage of the Chestnut Street house represent a departure from English practice? Is this theatre uniquely American? Do we find in it practices which do not appear to be found anywhere other than in America?
The answer to these questions lies in an examination of English staging practice at the end of the eighteenth century and in a comparison of the results of this examination with details of staging from the Chestnut Street Theatre, specifically, and with contemporary American theatres, generally. Careful examination indicates that John Foulston's Theatre Royal, in Plymouth, England, built during the years 1811-13, provides an excellent and accurate example of "standard" English theatre construction and machinery during the period being considered. Foulston's plans for the theatre have served the present study as a touchstone and have been of great value to this study for a number of reasons. First, these plans are drawn to scale by an experienced architect and draftsman. Second, the Plymouth theatre was of practically the same size as the theatre on Chestnut Street.1 Third, the Philadelphia house and the Plymouth theatre were built within ten years of each other. Finally, the arrangement of the Plymouth theatre appears to represent truly English practice, unaffected by Continental practices which enjoyed a brief vogue in London during the same period. Since Foulston's theatre appears to be

1 On the center line, the Theatre Royal measured 56 feet. The theatre had no forestage to speak of, however, and this dimension represents the depth from proscenium to rear wall. The proscenium-to-rear wall dimension of the Chestnut Street Theatre was about 59 feet. The stage of the Plymouth theatre was 58 feet wide, as compared to a width of 60 feet at the Chestnut Street Theatre.
so reliable and representative, it has been used extensively in this chapter to exemplify "typical" English practice.

The chapter, for clarity, is divided into several sections, each dealing with a specific aspect of the Chestnut Street stagehouse and stage machinery. Then, each section has been divided into three parts: (1) a consideration of a specific English arrangement or stage device, (2) an introduction to materials from the Chestnut Street Theatre which deal with the specific arrangement or device as it appeared on the stage of the Philadelphia theatre, and (3) an evaluation of the similarities and differences between the English and American employment of the arrangement or device.

The View of the Stage.--Like the blind men who examined an elephant, we are perhaps in danger of formulating unfortunate conclusions if we examine the parts before we examine the whole. In Figure 21, we have the only known view of the stage of the Chestnut Street Theatre, and from this view must be drawn our general impression of the scenery which stood on the stage of the theatre on Chestnut Street.² Five sets of wings are shown, receding at the rear.

²This engraving accompanied the April edition of the New York Magazine for 1794. Whether the setting illustrated actually represents a specific setting from the Chestnut Street stage is problematical. However, we must assume that it bears a strong resemblance to Chestnut Street settings, for it is unlikely that the artist would have been so rash as to fabricate an illustration which in no way characterized the settings of the Philadelphia house.
to a ground row, or partial ground row, immediately down-stage of a drop or pair of flats. The setting appears to be "of a piece," and only the borders above the wings strike a jarring note, for these borders do not appear to match the woodland setting made up by the wings and backdrop. This, then, appears to have been the general appearance of the Chestnut Street stage, as seen from the auditorium.

In Figure 46 may be seen the general appearance of an English stage of the period, also seen from the auditorium. Here we see Lord Barrymore’s private theatre at Wargrave-on-Thames, with scenes probably executed by Tobias Young, the principal painter of the theatre, and "Emmanuel." On the stage are three pairs of wings, cut—i.e., profiled—and painted to resemble foliage. Behind the third pair of wings on the stage right side is a low ground row, apparently in the form of a boulder. On a line with the first wings at stage left is a small set piece, shaped like a boulder. On a line with the third wings stands a post of short column, also a set piece. Directly up-stage of the third wing on the left is what appears to be a set piece in the form of an arch, behind which hangs the backdrop.

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4The terms set piece, ground row, setting-piece, and set-scene are employed in the present study in a broad manner. The term set piece is used to identify virtually any scenic unit, other than a ground row or set-scene, which stands independently on the stage, away from the wings. The term ground row is used to describe that piece(s) of scenery which masks the base of a drop or line of flats, while the
Figure 46. Lord Barrymore's Theatre, Wargrave-on-Thames. Interior view toward the stage. Harvard Theatre Collection. OSUIC Film No. 1443*.
drop, or flats. Borders are not shown in this drawing, but were undoubtedly employed. It may be assumed that the artist, exercising license, elected to depict a vast expanse of sky, at the expense of accuracy.

These views—Figures 21 and 46—represent what the audience of the respective theatres probably saw as the evening’s entertainment commenced. Let us first examine, in turn, each of the elements which comprised this scenic "stage picture" and then the theories and mechanics of these various elements.

The Front Curtain and Act Drop

The English Evidence and Operation. --It would be foolhardy to attempt to date the introduction of the curtain to the English stage. Quite likely it was employed—perhaps in the "inner below"—in the theatres of Shakespearean England. Most certainly it was employed in the court masques of Inigo Jones, probably in much the manner that a front curtain is employed today.\(^5\) Whatever its dates of origin, the term taking-piece, following Southern, is used to describe a scenic unit employed to mask a ramp. The term set-scene is here employed to describe a plastic or built-up scenic unit, standing apart from wings and drops. For a more detailed explication of these terms, the reader is referred to Southern, Changeable Scenery, p. 249ff.

\(^5\) Evidence from the manuscripts indicates that a curtain of some type was employed by Jones in The Masque of Blackness, where a scene opened "in manner of a curtain." (Royal Ms. 17 B. xxxi, in the British Museum.) In both Coelum Britannicum and Salmacida Spolia, the records indicate that a curtain "fell up on the sudden."
front curtain was well established in English theatres of the Georgian period. Closely related to the front curtain, but serving a slightly different function, was the "act drop," or act curtain. Figure 47, taken from Theodore Lane's Life of an Actor (1824), testifies to the front curtain and act drop combination in use on the English stage.

While Lane's drawing gives us a partial insight into the mechanics of the front curtain and act drop, Foulston's drawings have preserved in great detail the precise manner in which these devices were rigged in the English theatres. In addition, Southern has formulated the basic philosophy of handling drops and curtains:

There are three ways open to us today to work a drop or curtain: it can be flown, or it can be rolled, or it can suffer one of several shifts or part-flying, part-folding, part-lapping-up that are more compromised, and generally damaging in the long run to the paint or the material of the cloth.

From the evidence available, it appears that the front curtain was almost always tabbed up or rolled, although the latter method

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6 While the act drop was generally painted, often with a lavish landscape scene or a view of a town or city, the front curtain appears to have been rarely painted. Usually this curtain was made of baize, a coarse woolen material, customarily green in color. Hence the expression "green baize," when referring to the front curtain. The front curtain served the function of closing off the stage from the audience until the performance was ready to commence, a use consistent with and probably originating with Roman and Palladian practices. The act drop, on the other hand, served to mark the division of the play into acts, being lowered at the conclusion of each act, to be raised at the beginning of the next.

7 Southern, Changeable Scenery, p. 170.
Figure 47. View across the Stage of an Unidentified English Provincial Theatre. Lane's Life of an Actor, 1824.
seems not to have found too much favor. Figure 48, Foulston's Transverse Section of Flies, illustrates a tabbed front curtain and an act drop on a roller. Comparison of this drawing with Lane's view of the curtain and drop (Fig. 47) clearly indicates the similarity of practice which appears to have prevailed throughout this period.

The operation of the front curtain, as seen in Figure 48, is not unlike the operation of similar curtains today. Lines connected to the curtain were drawn up, causing the curtain to tab into graceful folds as it rose out of sight. These lines were connected in the flies to a winch, which is presented in the present study as Figure 49.

The softness of the green baize would lend itself to being tabbed, since it would tend to gather in graceful folds as it would be drawn up into the flies. In the Georgian theatre, as in the theatres of today, scene paint was mixed in a base of hide glue and whiting. This mixture, which even when properly mixed, tends to crack if folded or gathered. Tabbing up a printed drop, therefore, would be highly inadvisable.

Foulston, Plate 36.

The curtain (B,B in Fig. 48) is drawn up and let down by means of seven lines, designated by the letter (a), which pass over seven pulleys, each similarly designed. The entire curtain is attached to a batten, or board, which is suspended from the top of the stagehouse by brackets; this suggests that perhaps the green curtain could be removed if necessary. Figure 48 shows the green curtain drawn up into the flies, the position which it would normally occupy during performance. Lane's drawing (Fig. 47) shows the curtain in its extended position, reaching nearly to the stage floor. Here, the gathering of the curtain can be seen clearly.

Foulston, Plate 40, Fig. III. In Foulston's drawing (my Fig. 49), this winch is designated "Fig. III."
Figure 48. "Transverse Section of Flys . . . Looking Toward the Proscenium." Foulston's Public Buildings Erected in the West of England, Plate 36. Library of Congress, OSUC Film No. 70.
Figure 49. "Side Elevation" of Windlass for Lowering Green Curtain.
Foulston's Public Buildings in the West of England, Plate 40, Figure III.
Library of Congress, OSUTC Film No. 70.
Here can be seen the seven lines which run back from the curtain to the drum, leads from the drum proper to a counterweight. This counterweight provided a mechanical advantage, and appears to have been a standard devise throughout the Georgian theatre.

Figure 48, in addition to illustrating the workings of the front curtain, indicates the rigging employed in the operation of the act drop. The act drop, designated (C,C) in Figure 48, was operated by a winch, similar in every detail to that shown in Figure 49. Here, the similarity ends, however, for where the front curtain was "supported," or drawn up, by seven lines, the act drop worked on a roller, supported only at the ends. Action at the winch caused the roller to revolve, rolling up both the ropes connected to the roller and the drop itself. Although apt to be treacherous if ill-handled, the roller provided an excellent means of working a large drop or curtain where little overhead area was available and in situations where, because of the thickness of the paint on the surface of the curtain or drop, tabbing could not be employed.12

12To avoid sag at the center, the roller was built with as little weight as possible. Southern, citing no authority, describes the construction of a roller: "It was therefore the practice, for lightness and strength, to use a hollow roller, which the carpenter made up himself by gluing long strips of deal around the edges of a row of polygonal former-pieces, planing the whole to a true cylinder, and finally canvasing it. Disks of wood were fixed to the end of the complete roller to prevent the lines riding off." (Southern, Changable Scenery, p. 172.) I have seen rollers of this type in use in modern theatres; they are both light and extremely strong when
Finally, Figure 43 indicates the location of the grand border, a device which must be closely associated with the front curtain and act drop. The grand border appears to have been nothing more than a permanent masking piece, located down-stage of the front curtain and the act drop. The grand border served two functions. Esthetically, it provided a transition between the auditorium and the stage. To that end it is not uncommon to find the grand border, or a variant of it, located down-stage of the proscenium doors. Functionally, the grand border masked the tops of the scene borders behind it. Since it was imperative that the first scene-border be masked, we may infer constructed properly. Southern, again citing no authority, gives a diameter of 5 inches for a roller only 15 or 16 feet in length, a dimension completely consistent with modern practice. I have found no evidence to support practice in the Georgian period. However, the principle and purpose of the roller do not appear to have varied from the Georgian period to the present: the roller provides for the rapid removal of a paint-encrusted drop into a limited amount of overhead space, with minimal damage to the drop scene. Rolled on a diameter similar to that suggested by Southern—a diameter which would increase rapidly with each revolution of the roller—there would be little likelihood of cracking even the thickest paint. Additional supporting data, concerning scene-painting practices in America about 1800, are to be found in The Port-Folio, November 14th, 1801.

13 It might be argued that what appears to be a grand border in Figure 43 is in reality the bottom of the tabbed curtain. Examination of the Foulston drawing causes me to favor the presence of a separate grand border, but this decision is based as much on intuition as on the evidence obtainable from the drawing. Jane’s Life of an Actor (1824) provides evidence for a grand border at that date, and Figures 27 and 41 of the present study indicate the employment of a grand border during the first decade of the nineteenth century. Clearly the device in the English theatre is not without precedence.
that in theatres in which no grand border was employed, the front
curtain was lowered sufficiently to mask the top of the border behind
it.

Evidence from the American Theatre.—A green baize curtain
seems to have been employed in America at least as early as 1753.\textsuperscript{14}
It was still in use in 1787, for in Tyler's The Contrast, Jonathan,
describing his visit to the theatre, relates, "why I vow, as I was
looking out for him, they lifted up a great green cloth and let us
look right into the next neighbour's house."\textsuperscript{15} (The italics are mine.)

Among the Chestnut Street Theatre prompt books are many
instances of "Curtain Down," marked in the hand of the prompter. The
prompt book for The Dramatist, for example, bears the warning notation,
"Curtain down" on page 69, and the single word "Curtain" appears at
the conclusion of the play seven pages later. Although it has not
been possible to date these prompt books accurately, the book for
The Dramatist may well be one of the earliest specimens from the
Chestnut Street Theatre. The play was first performed by the Wignell-

\textsuperscript{14}McNemara, p. 168. In use at Douglas's Nassau Street Theatre.

\textsuperscript{15}Quinn, p. 68.
Reinagle company on February 21, 1794, and the prompt book could well date from that production. 16

I have found no specific reference to a green baize curtain or to curtain rigging at the Chestnut Street Theatre, but it seems reasonable to suppose, in light of one important piece of evidence, that the managers of that theatre made no departure from the practice of the day. In a Journal entry for May 4, 1813, William Warren wrote:

Baltimore, May 4th - great alarm and anxiety prevail here at present on acct. of the Enemy being so near. . . . they have burnt French Town and Havre de Grace [Maryland] we lost a new Green Curtain and a drop cloth intended for the theatre here [Baltimore] - value $650. (The italics are mine.)

Here we have conclusive proof that the Chestnut Street company, if not the theatre itself, made use of a green baize curtain. From this evidence and from a knowledge that the operation of the Philadelphia, Washington, and Baltimore theatres on the Chestnut Street company circuit appears to have been similar, we may infer that a green baize curtain was probably used in the New Theatre on Chestnut Street.

Conclusions.—From the evidence at hand, it may be concluded that in the theatres of the Chestnut Street company, as in many other theatres throughout the United States, a front curtain, probably of green baize, was regularly employed. This practice appears to have

16 The play remained in the Chestnut Street repertory until 1828, and it is possible, of course, that the prompt book reflects one of the later productions of the work.
been entirely consistent with English practice of the same period.

While there is no evidence of the manner in which this front curtain was rigged in American theatres, it seems reasonable to conclude that a rope and winch system, similar to the English system, was employed. From evidence in the prompt books of the Chestnut Street company, it may be concluded that as in the English theatres, the Chestnut Street company employed the front curtain solely to mark the conclusion of the acts of the play.

Figure 21 indicates that perhaps the front curtain at the Chestnut Street playhouse was mounted on a roller, for in this figure can be seen a dark mass, located just below the emblem on the face of the proscenium. In the absence of any documentation, we may only deduce that this mass represents either a rolled front curtain or a rolled act drop, placed in this position to serve the function of a grand border.

Backstage Operation of the Chestnut Street Theatre, and Some Comments on the Scenery

Before continuing with our analysis of English and American staging practices, it will be helpful to acquaint the reader both with the general picture of the Chestnut Street operation and with the scenery which was employed by the several managers of that
establishment. We are fortunate in having an excellent account of the theatre’s operation, for Charles Durang wrote:

We will now offer a few desultory remarks on the interior regulations of the theatre in Chestnut Street, at this time, and for many years afterward, during the old [i.e., Warren and Wood] regime. . . . The stage was set [for rehearsal]—that is, the flats were in their grooves agreeably to the requirement of the scene plot; . . . The scene-shifters were at their respective stations to answer the prompter’s whistle by changing the scenes. The property-man and stage-clearers were at the proper entrances, with the tables and chairs, to place them in their appropriate situations, as the business of the scene required; . . . These were the plain and gentlemanly principles upon which the rehearsals were based, in the simple comedies or tragedies, wherein no complicated set scenes were necessary. But even in the more busy or melodramatic plays, the same mechanical system of rehearsal was preserved. . . . When the bustling, scenic productions of the more modern, or later drama, gradually introduced themselves, melodramatic pieces required set scenes, backed with huge platforms, and castles to stand a mock siege. Blocks and tackle were necessary, and "Travellers" running in the flies, or behind the sky-borders, were wanted to fly angels, cupids, and the spirits of the air. Traps of whalebone, to quickly sink or rise demons and choice spirits from the shades below, began to be employed. "Parallels" to bring or usher forth genii through suns, moons and stars, were needed, . . . Even the Drummond light is now introduced, the other lights not being strong enough. 17

We cannot date the exact period of the Chestnut Street Theatre’s history to which this account refers, but three allusions tend to establish a range. First the use of the expression "the old

"regime" implies the management of Warren and Wood, for when this managerial team terminated their association in 1826, the concept of a regime at the New Theatre came to an end. Following 1826, management was carried out by an interminable string of leaseholders, none of whom remained long at the theatre. Second, the references to melodramas suggest that Durang's description of a rehearsal refers to activity at the Chestnut Street Theatre during the management of Warren and Wood. Examination of the kinds of productions staged in that theatre indicates that melodrama did not make up a significant part of the production schedule before the 1820's. Since Durang's description refers to the period prior to the introduction of the melodramatic type of production, we may infer that it refers to the period encompassing the early days of the Chestnut Street Theatre. Finally, the statement that "even the Drummond light is now introduced," suggests that Durang must have been referring to a period earlier than 1837. In fact, the operative word in the

18 James' listings of productions during the period 1800 to 1834 indicate that while a few melodramas were performed each year at the New Theatre, a significantly larger number were produced following 1820 than were produced prior to that year.

19 Theodore Fuchs, Stage Lighting, (Boston: Little, Brown and Company, 1929), p. 42: "records indicate that the earliest use of lime-light in the theatre took place in 1837." The lime-light, or Drummond light as it was often called, was invented in 1816, by Thomas Drummond. The light did not come into universal theatre use, however, until after 1850, and was probably not used in the United States prior to that time.
statement is the word "now," for it suggests that Durang is referring to contemporary use—that is, about 1854—of the Drummond light, as opposed to earlier lighting instruments and practices. Taken with other evidence introduced below, it may be concluded that Durang appropriately describes, however superficially, the scenic practices at the first Chestnut Street Theatre.

With the exception of only a few pieces, the scenes, machines, lighting equipment and rigging described by Durang were owned by the managers of the Philadelphia theatre. William B. Wood, in writing of the losses suffered by the management of the theatre in the fire of 1820, wrote:

It is not generally known that the stockholder’s property consisted of the walls [of the theatre] alone. The scenery, lights, wardrobe, and other appointments having been purchased from them by the managers some years before. The loss was great, as the property had been liberally augmented and improved through a long series of years.²⁰

From the phrase "the scenery [etc.] ... having been purchased from them by the managers," it might be concluded that the equipment itemized by Wood had, in fact, belonged originally to the shareholders. Indeed, it had, but only for a few months, and then not because the shareholders had procured it for use in their theatre. When Wignell died and the operation of the company subsequently came

²⁰Wood, p. 237.
under the management of Warren and Wood, the stock of scenery, lighting equipment, costumes, and furniture brought from England by Wignell evidently was seized by the shareholders in lieu of the annual retirement of ten $300 shares of stock,\(^{21}\) or perhaps merely as a guarantee against the possibility of loss with the change in management. For a short time, therefore, this inventory was owned by the shareholders, but theatrical materials, highly disposed to deterioration and of monetary value only to theatre people, could only profit the stockholders if they were sold.

A series of entries in William Warren’s *Journal* indicates the details of sale of these theatrical materials. The entry for Thursday, April 19, 1866, reads:

> We have been making arrangements to purchase the Wardrobe and scenery from the assignes of the late firm, and expect to succeed.

Further progress in the transaction is recorded in the entry for Thursday, April 23, 1867:

> I have concluded the business with Assignes of Wignell and Reinagle for the repurchase of the Wardrobe and Scenery for $2000—posted the necessary bond.

Finally, on Thursday, April 21, 1868, Warren entered a notation

\(^{21}\)See Chapter II, p. 36.
recording the conclusion of the transaction:

We took up our Bonds to John Ordly for the wardrobe this season—so that property is our own.

No further information is supplied by Warren, but from Wood's statement, cited above, it may be assumed that sometime following the 1808 season, the balance of the accessories was purchased by the managers.

That the supplying of theatrical materials by the leaseholders rather than the stockholders was common practice is attested to in the 1822 lease for the second Chestnut Street Theatre. The lease explicitly lists the "house" equipment:

1. Six pairs of wing ladders with ropes complete;
2. Four traps, with ropes and windlasses [sic];
3. One float frame [footlights], with rope and windlass;
4. Six pairs of Grovels [sic].

Here, then, we have a description of the operation of scenery on the Chestnut Street stage, plus a few remarks concerning the ownership of the stage equipment. Let us now examine this information in detail, beginning with basic stage machinery.

Grooves: English Evidence.—"The flats were in their

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22. 1822 Chestnut Street Theatre lease, original in the possession of the Historical Society of Pennsylvania, in Philadelphia. The meaning of the term Grovels is unknown; it is possible, however that this is a typographical error for the word grooves; the fact that "six pairs of wing ladders" are specified in the lease suggests this reading.
grooves," wrote Durang. Grooves are described as early as 1638 by Nicola Sabbattini in his *Pratica di Fabricar Scene e Machine ne' Teatri*, and were in general use well before that date. In discussing the system of grooves, Sabbattini applied their use to the backscene --or flats--stating:

... a groove must be made with two lengths of wood; it must be as long as from one side of the stage to the other and should be not more than an inch and a half deep [high], and should be well polished; smooth and smooth on the inside. ... it should be exactly as wide as the thickness of the battens of the backscene frame.23

In Chapter 15 of his work, Sabbattini suggests an improvement--the addition of wheels to the backscene to facilitate movement of the flats in the groove.

Grooves were probably introduced into England through the Stuart masques of Inigo Jones and were continually employed until the widespread use of the box set in the nineteenth century made them obsolete. Southern has admirably documented the use of the groove in the English theatre throughout his *Changeable Scenery*, and must be credited for the discovery of one of the few extant examples of early grooves, at the Bristol Theatre.

While groove notations are to be found in Italian, French, and English ground plans dating as early as the second quarter of the

seventeenth century, it is not until the publication of Foulston's plans of the Plymouth theatre in 1838 that detailed plans showing the actual construction of grooves are to be found.\textsuperscript{24} Figure 50 presents Foulston's plans for lower grooves, while Figure 51 shows a plan for the upper grooves.\textsuperscript{25}

In terms of Sabbattini's description, the grooves shown in Figures 50 and 51 might well be called \underline{compound grooves}, for rather than consisting of "two lengths of wood," i.e., a single groove as described by Sabbattini, English grooves, as exemplified by Foulston's drawings, were usually compounded into two, three, and four-groove units, with each compound unit sharing a single bed. The upper grooves were frequently hinged about midway off-stage, and could be drawn up at right angles to the floor of the stage. In Figure 52, Foulston's \underline{Transverse Section of the Plym},\textsuperscript{26} the mechanism for raising and lowering the upper grooves may be seen.\textsuperscript{27}

On Monday, October 15, 1732, and on the day following, the

\textsuperscript{24}These plans, while published in 1838, were executed for the construction of the Theatre Royal, Plymouth, in 1611.

\textsuperscript{25}Figure 50 is given in Foulston as Plate 30, while Figure 51 is given as Plate 31.

\textsuperscript{26}Foulston, Plate 37.

\textsuperscript{27}In Figure 52, a line is shown attached to the groove (D), and this line runs back to a winch, shown in Foulston's Plate 37, Fig. III (my Fig. 52). This line passes over pulley (D). The action of the winch, more properly called a capstan, turns a drum or barrel, which
Figure 50. Foulston's Plan of the Lower Grooves. Foulston's Public Buildings Erected in the West of England, Plate 30. Library of Congress. OSUN Film No. 70.
Figure 51. Foulston's Plan of the Upper Grooves. Foulston's Public Buildings Erected in the West of England, Plate 31. Library of Congress. OSUTC Film No. 70.
Figure 52. Foulston's Transverse Section of Flys.
Foulston's Public Buildings Erected in the West of England,
Plate 37. Library of Congress. OSUFC Film No. 70.
entire contents of the theatre and out-buildings of Lord Barrymore's private theatre at Wargrave-on-Thames were sold at public auction, by the auction firm of Christie. Christie's Auction House has preserved a complete record of the contents of Barrymore's theatre. Among the items sold were "all the loose and fixed grooves" from the theatre. The "fixed grooves" mentioned in the inventory were, of course, grooves similar to those illustrated in Figures 50 and 51, for it was common practice during the Georgian period, as before, to fasten the lower grooves directly to the stage floor in a permanent manner. The upper grooves, also permanently fastened, were mounted on the lower portion of the flys.

The "loose grooves" referred to in the Christie inventory would be difficult to explain without Foulston's plans. Figure 53 presents Foulston's detail of a loose groove, showing both its construction and the manner in which it was fastened into the floor.\(^{28}\)

Loose grooves, literally grooves which could be moved from place to place, raises all of the grooves simultaneously. It may be inferred, therefore, that the upper grooves were only raised for purposes of storage and seldom during a performance.

\(^{28}\)Figure 53 is given in Foulston as Plate 32. Each of the loose grooves appears to have been a separate unit, three and three-quarter inches at the base and one and one-half inches in height, with a groove one and one-half inches wide and about one-half inch deep. A well or socket, about one inch deep, was tapped into the stage floor at several points along the length of the groove, to accommodate a peg which descended from the bottom of the loose groove. These pegs held the loose groove firmly in place.
Figure 53. "Manner of fixing Moveable Grooves in Stage Floor." Foulston's Public Buildings in the West of England, Plate 32. Library of Congress. OSUIC Film No. 70.
place on the stage floor, were used to extend the length of the fixed grooves. To accommodate a pair of flats, loose grooves were run out into place at the onstage end of the fixed grooves, and were temporarily pegged into place on the stage floor by wooden pegs which extended through the loose groove into the stage floor. Once the loose grooves were in place the backstage flats were run on, in the fixed and loose groove combination. The flats, which met at the center of the stage, were supported almost in their entirety by the fixed groove-loose groove combination beneath them. At the conclusion of the scene, the flats were drawn off and the loose grooves taken up. The advantage of such an arrangement is obvious: the playing area in the center of the stage was not obstructed by grooves in the center of the stage floor, and actors could pass easily up and down stage without fear of tripping, yet the grooves could be set in place quickly when needed. The precise manner in which loose grooves were employed is presented below.

**Grooves: American Evidence.** --At least two sources indicate the presence of grooves in the Chestnut Street Theatre. Henry Warren's plan of the theatre at stage level, Figure 23, testifies to the presence of six sets of grooves in the theatre. Moreover, we have Durang's account, cited above, that "the stage was set--that is, the flats were in their grooves agreeably to the requirement of the scene..."
plot." In addition to these iron-clad testimonies, there are several references in the Warren letters to "worn-out grooves."29

Durang, in describing the stage of the South Street Theatre in Philadelphia, points conclusively to the use of loose grooves in the Chestnut Street Theatre:

The stage was the best part of the establishment. The scenes were composed of flats: that is, they moved on to the stage, either side, in grooves, as those of the present day [i.e., in 1854]. The scene-shifters (or flat hands, as they were dubbed) had to run out practicable grooves, by hand, onto the stage, from right and left side at once, which nearly met, and, when thus down, fitted with the grooves in which the scenes rested, so that a flat could be drawn on and quickly joined to its other half. The only reason we could ever see for this contrivance, was that the entrance, or place where the scenes rested in the grooves, was nearly an inch higher than the stage. This was a great inconvenience in many respects, especially to the entrance and egress of the performers. The first Chestnut Street Theatre was thus constructed. [The italics are mine.]30

From Durang's description of the South Street theatre, it is clear that (1) grooves were in use in the American theatre for some time before the construction of the Chestnut Street house, and (2) loose grooves were a standard part of the Chestnut Street equipment.

29 The Chestnut Street Theatre appears to have been by no means the only American theatre thus equipped. Durang, in describing the fire which destroyed the Richmond, Virginia, theatre in 1811, states that the scenes were not in grooves, but were managed in another fashion. The implication is that grooves were the usual manner of scene handling.

30 Durang, Vol. I, Chap. XVII, p. 34.
There is also complete agreement between this account of practice at the theatre and the earlier account of a rehearsal under the Warren and Wood management. It appears, therefore, that during the duration of the theatre in Chestnut Street, from 1794 to 1820, both loose and fixed grooves were a standard part of the stage equipment.

Conclusions.—The evidence at hand indicates that English and American employment of grooves—both fixed and loose—was virtually identical. Whether the construction of grooves on the American stage was identical with those drawn by Foulston is problematical. It seems reasonable to conclude, however, that little difference existed, for the similarities in employment suggest similarities in construction. The presence of grooves on the American stage suggests strongly that the concept of the groove and the system of scene shifting which accompanied its employment, represent a direct continuity of practice between the English and American stages.

Wings, Flats, and Borders

The English Evidence.—The precise date at which wings, borders, and flats were introduced onto the English stage is not known. Probably these devices date to the time of Inigo Jones, who may have introduced them to the English stage after seeing them in use on the stages of Italian Renaissance theatres. Certainly the employment of wings—literally, pieces of side scenery, borders, or
overhead masking pieces, and flats, or backscene pieces—was well established by the beginning of the English Restoration.31 Wings and flats in grooves were pushed onto the stage by scene hands. Documentation of this practice is abundant. Prompt notes in the Change of Crows (1635) mark "1st Whistle ready," and further on, "2nd Whistle ready,"32 and in An Evening's Love; or, The Mock Astrologers, produced at the Theatre Royal, Bridges Street, 1668, we find the directions "the scene opens" (Act IV, scene 1), and "Maskel goes to one side of the scene, which draws and discovers . . ." (Act V, scene 1).33 (The italics are mine.)

These notes indicate a scene changing system which remained in common English practice throughout the eighteenth, and well into the nineteenth, century. The prompter whistled, or in some theatres rang, a warning to the shifters who stood by their respective wings and backscene flats, or shutters. Upon the prompter's second signal, the

31 Perhaps the most concise definition of a wing and flat is given by Rees (Cyclopaedia, entry for "Dramatic Machinery"), who wrote: "The scenery of a theatre consists of the flat scenes [flats] which form the termination of the perspective across the stage, and the side scenes, or wings, which are disposed upon each side of the stage so as to be shifted as often as may be necessary."

32 Southern, Changeable Scenery, p. 136. Generally speaking, a whistle was employed to signal the scene-shifters. A bell, which was used at a later date to signal the shifters, was reserved for communication with the orchestra.

33 Southern, Changeable Scenery, p. 137.
wings for the new scene were pushed out into place—each wing in its groove, and a new backdrop shutter was pushed into place in its grooves at the rear of the stage.\textsuperscript{34} As late as 1889 this method of pushing scenery onto the stage was still remembered, if not still employed, and on page 94 of the 1889 volume of The Magazine of Art, we find William Telbin, Jr., in defense of the new scenic practices of Henry Irving, begging the question: "Would the old spectacle be preferred of scene-shifters charging one another with 'flats' that ran in the long extending arms of the grooves . . .?\textsuperscript{35}

This system of "charging" the scenes into place was not the only method employed on the English stage, however, although for nearly two centuries it was by far the most popular method. From time to time, in both England and Ireland, the so-called "French system" of scene shifting was tried experimentally. Never did this system enjoy widespread or continuing employment, however.

In the French system of changing, a carriage and pole were employed. The carriage, or chariot, ran on rails in the cellar of the

\textsuperscript{34}In an alternate method, a downstage backdrop, perhaps in the first or second groove, would close in on a scene. Then, upstage of the shutter, a new scene would be set in place, to be discovered, on cue, by the parting of the downstage backdrop flats, or shutters.

\textsuperscript{35}The term "flat" was employed throughout the eighteenth and nineteenth centuries in a variety of loosely defined manners. In some contexts, it could signify the two shutters which formed the backdrop. In other contexts, however, it could be used to designate wings. Here, Telbin appears to be referring to both wings and shutters.
theatre, and supported a pole or wing frame, which rose above the
level of the stage floor to the height of a wing. On this pole or
frame was fastened the wing. An excellent description of this system
is given by Southern:

Two or more of these carriages exist at each wing-position and once having created this elaborate
machinery, it is an almost obvious step to harness one
carriage from each position to a central roller
passing through the cellar from front to back, then,
by means of a return rope fixed to the off-stage end
of the carriage, running thence through a pulley on
the side-wall of the cellar and back again to the
roller, but winding round it in the opposite
direction, one is enabled by turning the roller one
way to draw all the relevant carriages on-stage
simultaneously, while by turning it the other way
all the carriages are simultaneously withdrawn. 36

By connecting the second carriages at each wing-position in a
similar manner, but with their ropes wound in the reverse direction
around the roller, a system was created for simultaneous scene
changes: as one set of wings moved off-stage, a second set of wings
moved on-stage and into view. This rigging, for a single set of
carriages, is shown in Figure 54, an English adaptation of the French
system, employed briefly in the Covent Garden Theatre about 1803. 37

36 Southern, Changeable Scenery, p. 216.

37 Rees, Cyclopaedia, Vol. XII, "Disposition of Scenery," Plate X.
Here the stage floor is designated (E), the track or sleeper on which
the carriage rides is designated (A), and the walls of the theatre are
designated (D). Seen in this drawing is one wing-position, with two
sets of carriages and wing-frames (wing-ladders). The first set of
wings (B,B) is in front of the second (C,C). "At (F)," wrote Rees,
Figure 54. Machinery for the Simultaneous Changing of Wings. Covent Garden Theatre, ca. 1803. Rees' Cyclopaedia, "Dramatic Machinery," Plate X. Library of Congress. OSUIC Film No. 73.
The French system was tried experimentally in England and Ireland at least as early as 1749, and was possibly tried by Davenant, at Lincoln's Inn Fields, as early as 1661. Each attempt, including that made at the Covent Garden Theatre, was quickly abandoned in favor of the old established method.

In the French system, the backscene was handled as a single unit. Formed by one large flap, or ferme, the French backscene was introduced from below the stage through a cut in the floor. As we shall see presently, this device, like the device for simultaneous moving of wings, gained little favor on the English stage.

While this specific single-unit backscene was seldom used on the British stage, evidence indicates that drops were frequently

"is a long cylinder, or barrel of wood, revolving upon iron axles, and extending from the front to nearly the back of the stage, so as to move all the wings at once." Lines run from the barrel (F) through the pulleys (H, K) and back to the barrel, and it is by these lines, wound in opposite directions on the barrel, that the carriages are moved. Mechanical advantage is supplied to the barrel, for Rees notes that "upon the barrel (F) is a wheel, moved by a pinion (G), by means of the handle (I) ... to increase the power."

30Southern, *Changeable Scenery*, p. 213.

39The prologue to the second part of *The Siege of Rhodes* mentions the movement of scenes by *Engines*. While it is possible that Davenant, who was well acquainted with the French system, employed under-stage machinery at Lincoln's Inn Fields, I believe it to be highly unlikely that he did so. Careful research into staging at the Duke's Theatre indicates that very likely there was little or no space below the stage for machinery, possibly not even enough space to permit the employment of traps.
employed as backscenes. Unfortunately, the scenic artists of the late Georgian period left no record of the criteria by which they chose one form of backscene over the other, i.e., whether to employ drops or flats, but from the manner in which these scenic pieces were employed, certain inferences may be drawn.

If nothing else, drops were far less esthetically satisfactory than were flats, for what could be more ridiculous than to see an actor revealed, little by little, as a roll drop majestically ascended into the flies.40 Moreover, practical doors and their attendant door-frames could not be let into drops, since such a frame would prohibit the action of the roller. We may infer, from this latter limitation, that roll drops were probably never employed in scenes which called for workable doors in the backscene, and that function determined selection of drop or flat.

While the bulk of the scene on the English stage was comprised of wings and a backscene in combination, no wing setting could be considered complete without the addition of borders—long, relatively narrow strips of canvas or cotton cloth—hung above and slightly down-stage of the wing-pairs. Painted to resemble the sky, folioted

40 Even under optimum conditions, perfectly balanced with counterweights, a roller must be wound rather slowly, for should the rope by which it is wound become tangled with the drop as the roller is wound up, it is impossible for the roller to be unwound.
branches, and ceiling beams, these borders performed three essential functions:

1. They interrupted the view into the area above the stage, thereby hiding from the spectator the ropes and machinery which operated the borders and flying apparatus;

2. They masked the tops of scenic units, hiding the grooves which held the wings in place from above;

3. They united the disparate elements of the setting and the several pairs of wings and flats of the backscene, and served to lead the eye along the perspective line laid out by the designer or scene painter.

In England, the wing and border combination was in use at least as early as 1640, when Inigo Jones hung borders directly from the ceiling of the stage which he erected for his production of *Salmacida Spolia*.\(^4\) At what point changeable borders came into general usage in England is not recorded. Jones' borders may have been changeable, parting in the middle, like flats, and being drawn off to the sides.\(^5\) In 1811, however, with the drawings from Foulston's Plymouth theatre, we find a record of borders which are let

\(^4\) The Lansdowne M3 1171, in the British Museum, provides excellent pictorial authentication of this point. See also Southern, *Changeable Scenery* for an extensive discussion of the employment of borders on the English stage.

\(^5\) The Covent Garden Inventory of 1743 lists *cloudlings*, literally cloud borders, which were "drawn off," presumably with the aid of a long pole or hook. Southern suggests that to accommodate their sidewise journey above the stage these borders might have been constructed in either two or three pieces, in a manner similar to backscene shutters. (Southern, *Changeable Scenery*, p. 182.)
in from above the stage and which are changed with relative ease as the wings beneath them change from scene to scene.

The Foulston plans do not show a border hanging above the stage, but do indicate the rigging lines for a border, and the machinery which operated this rigging. In Figure 52, Foulston's Transverse Section of Flies, looking toward the Painting Room, or downstage, a set of lines for suspending a border (E,E) is shown attached to the drum (z) and winch (Fig. IV) which operates the borders.

In Figure 55, Foulston's Longitudinal Section of the Flies, the drums are designated (Fig. I, Fig. I), while the winches are marked (Fig. II, Fig. II). A detail of the winches (Fig. V) is given in the Transverse Section, (Fig. 52). Study of Figure 55 reveals that all of the borders in a given set were attached to one drum (Fig. I), and that the winch (Fig. II) was rotated; all of the borders attached to that drum were let in or flown out simultaneously.  

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43Foulston, Plate 37.
44Foulston, Plate 38.
45In his "Key to Plates," Foulston speaks of only sky borders and arch, or interior borders. The implication here is that only two types of borders were hung for a given production, the same interior and exterior borders being employed regardless of the scene beneath them. However, inventories of the period indicate that a wide variety of borders existed within a specific theatre, and undoubtedly, different borders were tied onto the battens of the rigging as the necessity arose from production to production.
Figure 35. Longitudinal Section of Flys.
Foulston's Public Buildings Erected in the West of England,
Plate 38. Library of Congress. OSUTC Film No. 70.
From the evidence available to us from the English stage, we may conclude that by 1794, a well defined and established practice existed for the employment of wings, borders, and backscenes, whether flats (shutters) or drops. In general, wings and backscene shutters were pushed on and pulled off manually. Borders, employed to mask the tops of wings and backscene, were probably attached to a common drum or shaft, so that they could be changed simultaneously with the wings and backscene, using a minimum of stage hands.

The American Evidence.—From our examination of the backstage operation of the Chestnut Street Theatre, as presented in Durang's account of a rehearsal in the theatre (p. 191, above), we have learned:

The flats were in their grooves agreeably to the requirement of the scene plot; ... the scene-shifters were at their respective stations to answer the prompter’s whistle by changing the scenes.

Here we have indisputable evidence that, like the prompters of the English Restoration, the prompters of the Chestnut Street establishment though more than a century and a quarter later, whistled up the scenes, and that these scenes, like those of the English stage, consisted of wings and backscene, in grooves.

Where Rees, in writing of the English stage, records merely that the wings and flats were "canvas, stretched upon wooden frames." [46]

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[46] Rees, Cyclopaedia, entry for "Dramatic Machinery: Description of the Machinery."
a drawing of a flat, taken from the Warren Scrapbook, illustrates quite explicitly the actual method of constructing flats and wings employed in the Georgian theatre. This sketch, presented as Figure 56, was appended to an undated letter, probably written in mid-August, 1817, from William to Henry Warren.47 This letter reads in part:

Dear Henry: Since I closed my letter to Mrs. Warren I have received this from Cummins [a carpenter at the Chestnut Street Theatre] which you can get framed—if agrees with your ideas of the scene—you can make alterations which you may think proper.

Warren's sketch (Fig. 56) indicates several interesting details concerning both the construction of the scenery and the nature of the stage and its machinery. At the bottom of the sketch is a scale, reading from one to twenty. In his instructions, William Warren indicates that the unit "will be 2 feet clear of the wings on each side or a little more." The unit, as shown, is twenty feet wide; an allowance of 2 feet plus, on either side of the frame, would bring the total width of the unit up to a little better than 24 feet, a width which is completely consistent with my conjectural reconstruction of the Chestnut Street Theatre, which provides for a proscenium opening of about 28 feet.48

The edges of the unit are profiled, indicating that the frame

47 The play for which this sketch was prepared has not been identified.

48 See Appendix C.
Figure 56. Rear Elevation of a Flat, Showing Framing and Suspension Bridles. Warren Scrapbook, undated letter. OSUTC Film No. 1759x.
was for an exterior setting. As in modern scene construction, the
unit is comprised of rails and stiles. The rail which frames the
lower portion of the center opening suggests that the frame was backed
by a low escape platform and that there was a step down from the
on-stage side of the portal, for the rail is elevated several inches
from the stage floor.

Although Rees gives little information concerning the
construction of flats and wings, drawings in his *Cyclopedia* indicate
that there is a strong similarity between the English and American
methods of framing. Moreover, since the groove system in the English
and American theatres appears to have been virtually identical, and
since both theatres appear to have employed flats and wings, the
inference is clear that similar if not identical framing methods were
probably employed in the theatres of the two countries. Let us now
explore the precise operation of the American wing and groove system.

Operation of the Wing and Groove System.—As we have seen, the
Chestnut Street Theatre employed a system of wings and grooves
entirely compatible with those of the English stages of the same
period. Five or six pairs of grooves were employed in the New
Theatre.⁴⁹ From Durang's account of the rehearsal, we may reconstruct
the process of scene shifting. When the moment came to change from

⁴⁹ See Appendix C, Grooves. Prompt book notations suggest that
no scenes were set deeper than the third grooves.
scene one to scene two, the prompter, who had already given a standby
warning to the stage crew, "rang the change," and the scene-shifters,
who "were at their respective stations"—that is, one scene-shifter to
each groove-set—executed the change by pulling off the first scene
wings to reveal the second.

The process of changing from one scene to the next involved
several steps which were sufficiently complicated to warrant
explication in the present study. When the warning was given, flat
hands or scene-shifters, moved into position to accomplish the change.
Furniture, if used in the new scene, was positioned upstage of the
shutter or drop scene which terminated the scene in use. When the
signal for the change was rung, the flat hands, one man to each wing-
bank, pulled off the appropriate wing, revealing the setting for the
next scene. That this change was not always accomplished as smoothly
as it might have been is attested to by the frequently appearing
prompter's notation to "See Wings," suggesting that a visual
verification of the change by the prompter was highly desirable.

We may more easily understand the mechanics of these changes
if we examine a change through a specific Chestnut Street Theatre
prompt book. Of the twenty-one extant prompt books, only six contain
detailed instructions for the placement of settings, and of these six,
only one is complete. The notations for this complete transcription of the setting for *The English Merchant*\(^{50}\) are presented below:

<table>
<thead>
<tr>
<th>Act, Scene and Description</th>
<th>1st Groove</th>
<th>2nd Groove</th>
<th>3rd Groove</th>
</tr>
</thead>
<tbody>
<tr>
<td>I,1 Room in Mrs. Goodman's</td>
<td>Door Chamber</td>
<td>. . . .</td>
<td>. . . .</td>
</tr>
<tr>
<td>2 Amelia's Apartment</td>
<td>. . . .</td>
<td>Blue Chamber</td>
<td>. . . .</td>
</tr>
<tr>
<td>II,1 Apartment at Goodman's</td>
<td>Door Chamber</td>
<td>. . . .</td>
<td>. . . .</td>
</tr>
<tr>
<td>2 Amelia's Apartment</td>
<td>. . . .</td>
<td>Blue Chamber</td>
<td>. . . .</td>
</tr>
<tr>
<td>III,1 A Hall</td>
<td>Ionic</td>
<td>. . . .</td>
<td>. . . .</td>
</tr>
<tr>
<td>2 Amelia's Apartment</td>
<td>. . . .</td>
<td>Blue Chamber</td>
<td>. . . .</td>
</tr>
<tr>
<td>2a Spatter's Apartment</td>
<td>. . . .</td>
<td>Door Ionic</td>
<td>. . . .</td>
</tr>
<tr>
<td>IV,1 A Hall</td>
<td>Ionic</td>
<td>. . . .</td>
<td>. . . .</td>
</tr>
<tr>
<td>V,1 Scene Continues</td>
<td>Ionic</td>
<td>. . . .</td>
<td>. . . .</td>
</tr>
</tbody>
</table>

Before the commencement of the evening's performance, the green baize curtain and the act drop were lowered. Immediately up-stage of the act drop the flats forming the backdrop of the *Door Chamber* were drawn into place, in the first groove. Immediately up-stage of these flats, still in the first set of grooves, were placed the wings for the *Blue Chamber*. Directly up-stage of the *Door Chamber* backdrop—in the alleyway between the first and second grooves—were set the table, two chairs, and tambour frame which furnished the Blue

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\(^{50}\) The play was first performed on February 20, 1795, with a second performance taking place on April 18, and a possible third performance on April 20. One performance, which appears to have been the final presentation of the piece by the Chestnut Street company, was given on February 20, 1796.
Chamber. In the second grooves were placed the flats which made up the backdrop for the Blue Chamber.

The wings and flats for the Ionic and the Door Ionic scenes were placed in a similar manner. At the conclusion of the first scene of The English Merchant, the flat hands, alerted by the prompter's warning, positioned themselves at the first grooves. When the change bell rang, the Door Chamber backdrop-flats were drawn off on either side of the stage, revealing the Blue Chamber wings and backdrop, with the furniture for the scene already in position. At the conclusion of the second scene, the process was reversed, and the Blue Chamber vanished, deferring to the Door Chamber in the first groove.

We see, then, that like its English counterparts, the Chestnut Street Theatre, between 1794 and 1820, employed a system of scene changing which consisted of wings and flats, operated manually in fixed and movable grooves. Settings, in general, were arranged in planes of the stage which were alternately deep and shallow. The wings and flats which were employed in this system were constructed in essentially the same manner in both England and America, and closely resembled those of the modern stage.

As in the English theatre, both backdrop shutters (flats) and drops were employed in the Chestnut Street Theatre. Like English practice, doors were let into flats, rather than into drops. Evidence for this conclusion comes from the Chestnut Street prompt books. In
every instance in which doors appear in the scene, the prompt notations indicate that the entrance is accomplished through a door in the flat.

An example from *The Will* which was first performed by the Chestnut Street company on January 24, 1798, and which remained in the repertory until at least 1832, serves to illustrate this point. In Act III, scene iii, we find a scene description, printed in the text, followed by the prompter's notation at the entrance of Howard: "From door in Flat--O.P." An entrance into the room was clearly made through the flat, or backscene. Similar notations of entrance and exit through doors in the flat appear throughout this prompt book.

Nowhere in either the Chestnut Street materials or in other materials related generally to the American theatre of this period have I found evidence of actors entering a scene through a drop, or via a door in a drop. We may conclude, therefore, that as in the English theatre, drops were employed in the American theatre in situations where practical doors were not required. Where such doors were a necessity, flats appear to have been employed consistently in the backscene.

While no specific mention of borders is made in any of the Chestnut Street materials, the interior view of the theatre, drawn by

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The prompt book for *The Will* bears notations in two different handwritings, and judging from the several changes which appear in the prompt notations, testifies to two different production schemes.
"J. Lewis" in 1793 (Fig. 21), clearly indicates that borders were in use in that theatre from its beginning. Moreover, at least two references to borders in Durang indicate that these masking devices were in common use in the American theatre of a slightly later period, which suggests a continuity of practice from earlier times.

In the first of these citations, Durang relates the details of a highly specialized border, but a border employed in the same spirit as those of the English stage:

At this time [1823, possibly at Tivoli Garden, Philadelphia] a very ingenious, picturesque mechanical theatre, was exhibited here, making numerous changes of scene . . . the night scenes appeared in perfect concave, the firmament girted with stars, as in the dome of nature. This was a most ingenious piece of machinery. The top of the stage with us, in such a scene, would be limited by what is called sky-boarder [sic], a flat piece of canvas, to represent the roof, the ceiling, or the sky, as the character of the scene might be.\footnote{Durang, Vol. II, Chapter 14, Series 2, p. 199.}

The account continues, relating that in this particular display, the borders were constructed in such a manner as to suggest a continuous dome over the stage. It is the "old" border which is described in detail, however.

Durang's second account demonstrates the importance of borders to the stage setting and indicates that, even in instances where the
use of borders was impractical because of restricted above-the-stage space, borders were nevertheless employed:

In playing this same character [Rolla, in Pizarro] in Reading [Pennsylvania] during the summer of 1826, he [Thomas Grierson, an actor from the Theatre Royal, Dublin] crossed the tree bridge—as it is usually set in Pizarro—with the child in his arms, but the scenery of said stage hung very low, Grierson's face was entirely hid by what is called the sky boarders [sic]. This was too much for poor Tom's tragedy ambition, so he leaped down into the waters, wherein he stood knee-deep, and then cut away the bridge with his sword... This proceeding was hailed with repeated shouts of applause, as a piece of new and effective business, when, in fact, Grierson only jumped into the artificial waters from a desire that his face should be seen by the audience.\(^{53}\)

Of the precise manner in which the borders in the Chestnut Street Theatre were operated, nothing is known. It is possible, of course, that each border was operated separately and manually. However, two factors mitigate against such a speculation. Wignell and Reinagle, like Warren and Wood, were extremely cost-conscious. It seems unlikely that either of these managements would have employed a system which necessitated more stage hands than was absolutely essential. Moreover, it seems reasonable to conclude that a system of handling borders similar to that employed in Poulston's Plymouth theatre must surely have been known by the managers. Since such a system permitted a single operator to let in and fly out all the 

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\(^{53}\)Durang, Vol. III, Chapter 35, Series 2, p. 239.
borders requisite to a given performance, it must be concluded that some mechanical means of working borders was employed at the Chestnut Street Theatre.

Conclusions.--From this examination of the English and American employment of scenic elements, several conclusions may be developed. Clearly, both theatres formed scenes through combinations of wings and backscene flats (shutters). These wings and flats were nothing more than light wooden frames, over which canvas was stretched. Wings and flats were supported by and worked in grooves.

According to the demands of the scenes, drops were sometimes substituted for flats. This could not be accomplished, however, in instances in which practical doors were employed in the backscene.

Borders were employed in both the English and American theatre. So integral a part of the wing and backscene setting were these borders that settings composed of these elements were generally referred to as "wing and border" sets. English borders appear to have been ganged together, and operated off a single drum, by a single stage hand. American evidence in support of this system of handling borders is sparse, but so closely allied are the several other parts of the wing and border system that it seems reasonable to conclude that the English practice of ganging borders by type was probably employed in the American theatre.
Some Further Comments on the Scenery

Having pointed out the similarities between English and American elements which we have thus far examined—the green baize curtain, act drop, grooves, wings, backscenes, and borders—it would now perhaps be well to discuss factors which may have given rise to these similarities.

The above comments have explicated both the ownership of the scenery and the stage machinery at the Chestnut Street Theatre (pp. 190) and the acknowledgement of similarities between the English and American technical practice. In order to develop an explanation for these similarities, a consideration of the origins of these scenes and machines may give us fuller understanding for the total implications of their usage.

In securing materials for their theatre, it was only logical that Wignell and Reinagle should turn to England, the fountainhead of theatrical activity in the fledgling United States. Nor did they establish any precedent by doing so. As early as 1754, William Hallam had introduced English scenery to the Philadelphia stage.54 Four years previously, Hallam, then manager of Goodman’s Fields (London), filed bankruptcy. So generous were Hallam’s creditors, wrote Durang, "that they not only unanimously forgave him their debts, but presented

54Gollock, p. 10.
him with all the theatrical assets, such as the wardrobe, properties, and a portion of the moveable scenery, some of which served to illustrate the scenic exhibitions of our first stage" in Philadelphia. "Most of these appendages of the theatre," continued Durang, "were brought to this country. I remember that a number of the original properties, brought out in the first company, were kicking about the scenes of the old South street theatre [sic], in 1807."

Wignell, wishing to make the Chestnut Street Theatre's productions the finest in America, quite naturally turned to England for help. In addition to dispatching M.C. Milbourne to execute scenery for the new theatre and to assist in the decoration of the new house, Wignell, on a recruiting trip to England, sent back in 1793 scenes from the brush of John Inigo Richards.55

Not only did Richards furnish "a garden cloth of surpassing excellence,"56 he also furnished an act drop which must have been a

55 McKenzie states (p. 40) that Michael Rooker and William Hodges also supplied scenery for the Chestnut Street Theatre. Although citing no authority, McKenzie's source is most certainly W.B. Wood (p. 237), the only author whose work mentions these artists. Hodges, who died in 1797, was considered a miserable scene painter, if a somewhat better engraver (See Theatre Notebook, Winter, 1964-65, p. 61). Rooker, a talented artist who painted for both the Haymarket Theatre and the private theatre at Blenheim Palace, appears to have painted nothing later than 1708 (See Theatre Notebook, Summer, 1965, pp. 144-145). That either of these artists, well in their physical and artistic decline when Wignell visited London in 1793, should have prepared scenery for the New Theatre in Philadelphia is difficult to imagine.

56 Durang, Chapter XIX.
"work of rare delight," if we are to rely upon Durang's description:

Richard's [sic] drop, as it was named, in honor of the celebrated artist of Covent Garden Theatre, who painted it for his relative, Thomas Wignell, expressly for the Chestnut Street Theatre, was destroyed [in the fire of 1820]. The subject of this beautiful act drop was a Grecian triumphal arch, with a most exquisitely wrought Italian sky in the perspective, relieved with variegated foliage. This painting was the admiration of every artist and connoisseur in consequence of the delicacy of the coloring and general artistic excellence.57

Scenery, costumes, and furniture were obtained by the Chestnut Street managers from Lord Barrymore's private theatre at Wargrave-on-Thames.58 Determining the precise nature of these items presents something of a dilemma. On Monday, October 15, 1792, and on the day following, the entire contents of the theatre and out-buildings at Wargrave-on-Thames were sold at auction by Christie's auction firm. No record was kept of the names of the purchasers, but a complete inventory of the scenery and properties sold at the auction has been preserved. Regrettably, the wardrobe and furniture were sold

57Durang, Chapter LXII.

58The Federal Gazette for April, 1793, announces the arrival of the George Barkley, with furniture purchased from Lord Barrymore's theatre, destined for the "New Theatre in Philadelphia." Henry Wansey, in recounting his excursion to the United States in 1794, reports that the scenery from Barrymore's theatre was purchased by Wignell (Henry Wansey, An Excursion to the United States of North America: in the Summer of 1794 [Salisbury: J. Easton, 1798], Chapter IV, n. 1, p. 2). W.B. Wood reports the purchase of the costumes (Wood, p. 237).
independently of the scenery, and no record of the items in this inventory was taken. The inventory of theatrical materials sold at the auction is given in full below:

1. Several Pieces of scenery at ---- per square yard (seven entries)  
2. A desert cloth  
3. A saloon cloth  
4. A sheet complete  
5. 22 borders various  
6. 3 old canvas cloths and rollers, one gauzed  
7. Blue Beard's palace cloth  
8. A moonlight transparent ditto (i.e., cloth)  
9. A transparent glory ditto (i.e., cloth)  
10. A moveable horizon cloth (and) the several barrels, lines and pulleys to ditto  
11. 2 pair of lamp ladders and lamps  
12. 4 pair of wing ladders  
13. A thunder barrels [sic]  
14. 22 iron maces [hammers] for scenery  
15. All the loose and fixed grooves  
16. 2 flat frames  
17. A trick door  
18. Flat and irons  
19. 5 trap barrels and lines  
20. A Table trap complete  
21. A Windmill with sails  
22. 8 small canoes  
23. Two stuffed camels  
24. A Lamp with barrel, lines, etc.  
25. A painted oil cloth, 15 by 14 feet (2 entries)  
26. A painted oil cloth, 15 by 10 feet  
27. Sundry pieces ditto (i.e., of oil cloth)  
28. A parcel of Sundries in Green Room.

Assuming that nothing was removed from the theatre prior to

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59Appended to the bottom of the title page of the Christie Inventory is the notation "N.B.: The EXTENSIVE and ELEGANT WARDROBE of the above THEATRE ... a Variety of Articles for THEATRICAL PURPOSES may be treated for, by Application in PALL MALL."
the preparation of the inventory, the scenic pieces in Barrymore's theatre consisted on (a) an unknown number of wings and flats, referred to in the inventory as "pieces of scenery"; (b) six drops; (c) two transparent drops, one a "moonlight cloth," the other a "glory"; (d) twenty-two borders of an assorted nature; and, (e) one "moveable horizon cloth," with its concomitant machinery.

The obvious problem arising from this inventory lies in the fact that no mention is made of the disposition of the contents of Barrymore's theatre, nor are the "pieces of scenery" adequately identified or described to permit us to trace them to the Chestnut Street Theatre.

The Christie Inventory of Lord Barrymore's theatre probably represents the complement of scenes, set pieces, and properties which we might expect to find in any English theatre of similar size. While the unspecified "several pieces of scenery" undoubtedly included special pieces from pantomimes, ballets, and extravaganzas, most of these pieces were probably elements of stock scenes.

Stock scenery developed as a logical consequence of the production schedules of the English theatres as early as 1665-70, by which time the practice of presenting a different play, or plays, each night of the playing week was firmly established. Under such a schedule, new scenery could not possibly be painted for each play; to combat this difficulty, stock scenery--scenery which was generic,
depicting parks, chambers, streets in general, rather than depicting any specific localized scene—came into wide use.

Playing schedules in the United States followed closely the English formula, and the use of stock scenery was in general use throughout America. Durand, writing of the scenery at the Walnut Street Theatre in 1829, recorded:

When Brutus was played, the house was "cripp'd, cabin'd and confin'd" for appropriate scenery. The stock scenery for nightly use was very scant [at the Walnut Street Theatre]. The play opened with the Roman forum scene, a street, a two door and three door chamber, without which no plain comedy or farce could be done at all. Then a palace scene, taking in all the stage; a front wood; a prison scene and a horizon at the back of the whole; a kitchen and a garden. A dramatic house must have the above variety, or they cannot play any of the stock scenes. Hence, these scenes are termed stock pieces.

Inventories from the Alexandria and Washington theatres indicate that no standardized did stock scenic complements become during this period that the scenery from one company's theatre was able, virtually without augmentation, to satisfy the scenic demands of a different producing company. In 1821, Warren purchased the contents of the Alexandria theatre from Caldwell, and transported the stock to Washington for use in the new Warren and Wood theatre in that city.

60 Specific scenes or settings for entire productions were constructed for special performances or for unique productions, especially of melodramas and pantomimes, but this appears to have been the exception, rather than the rule during this period.
An inventory of the original transaction has been preserved, and there also exists an inventory of the contents of the Washington theatre three years later. Comparison of these two inventories indicates the addition by the Chestnut Street Theatre company of numerous set pieces and properties, but the standard scenic complement, the *stock scenery*, remains unchanged. Items of stock scenery common to both theatres included:

1. Chamber - Green
2. Chamber - Blue
3. Prison
4. Palace (2) (N.B.: In the Washington inventory this item is referred to as "Drapery Palace."

5. Street
6. Cut Wood, composed of: Front Wood and Back Wood pieces
7. Kitchen

A cave is included in the Alexandria inventory, but is not recorded in the Washington list. It is possible that this item was a set piece, or set scene, rather than a stock setting.

From this comparison of the Alexandria and Washington inventories can be seen the manner in which scenery from one theatre was assimilated, unchanged, into the stock of another theatre. Since we have a general idea of the scenes and machines sold at auction from the Barrymore theatre, may we perhaps discover the specific nature of these unidentified scenes through an examination of the scenic pieces...

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61 A complete comparative listing of these inventories is given as Appendix A of the present study.
employed at the Chestnut Street Theatre? Such a speculation, while appealing, is fruitless.

Notations from the Chestnut Street prompt books provide information concerning the scenic complement at the theatre, but in the absence of precise descriptions in the Barrymore inventory it is virtually impossible to correlate the two groups of scenery. The Chestnut Street inventory of stock scenery can be partially developed from the theatre's prompt books. This inventory consisted of at least the following items:

1. Door Chamber
2. Blue Door Chamber
3. Blue Chamber
4. Ionic [Chamber]
5. Door Ionic [Chamber]
6. New Ionic [Chamber]
7. Ionic Hall
8. McGilpin Chamber
9. Street
10. Park
11. Cut Wood (Richard's Cloth)
12. Damask Chamber

Were it merely the case that all of the scenes at the Chestnut Street Theatre, when it opened its doors in 1794, came from England, we might readily surmise that the complement of scenes represented in the Chestnut Street inventory was, in fact, the complement of scenery from the Wargrave-on-Thames theatre. But we know that several English scene painters supplied "scenes" for Wignell and Reinagle. Moreover, we know that Milbourne was employed specifically to prepare new scenes
for the theatre on Chestnut Street. Finally, it is entirely possible that scenery was purchased from the South Street or other Philadelphia companies and repainted for the grand opening of the Chestnut Street house. Therefore, it must be concluded that while stock scenes were employed in the Chestnut Street Theatre and some of the scenes for that theatre came from England, it is impossible, confronted with such a lack of evidence, to determine precisely which scenes came from England and which were painted in America.

Conclusions.—To summarize briefly the origins of the scenery at the New Theatre, the theatrical materials at the Chestnut Street Theatre were, with few exceptions, owned by the managers. Although M.C. Milbourne, a talented English scene painter, was employed by Wignell to assist with the scenery at the theatre, a substantial portion of that scenery was shipped to Philadelphia from England. The imported scenes were painted by John Inigo Richards, and possibly by Hodges and Rooker, and may conceivably have been based on the designs of de Loutherbourg, although we have only the word of John Bernard attesting to this last assertion.62 Some of the scenes, in addition to the costumes, furniture, and possibly the machinery, came from

62 Bernard, p. 69, who states that the principal scenery for the New Theatre "had been painted from designs by Loutherbourg." Richards, of course, worked with de Loutherbourg, but the latter had long since departed Covent Garden when Richards prepared Wignell's scenery.
Barrington's theatre at Wargrave-on-Thames. Finally comparisons of the
Wargrave-on-Thames, Alexandria, and Washington inventories indicate
the similarity of scenic and property pieces employed in the American
and English theatres, while the listings in the Alexandria and
Washington inventories clearly establish the use of stock scenery in
the American theatre. This conclusion fully supports the evidence
found in the Chestnut Street prompt scripts. Confronted with this
evidence, we must conclude that at least to a large extent, where
English practice prevailed on the American stage during this period,
this practice was due, in part, to the employment of scenic pieces and
devises which originated on the English stage.

The Flys, and Flown Pieces

Thus far we have examined those scenic elements which rested
on the stage floor and which were drawn off to the sides of the stage,
into the wings when not in use. Let us now consider the area above
the stage floor and the wings—the flys. As we have done in other
portions of this chapter, we shall first consider non-American
practice. Here we shall examine: (1) the area above and the area
surrounding the stage, the flys; (2) scenic pieces hung from and

63 This is not strictly true, of course, for we have also examined the borders, which depend from the flys. But these elements are so much a part of the scenery below them that to consider them apart from the flys seems not amiss.
worked from the flys, and (3) the conceptual and philosophical
differences between the English and French systems of working the
backscene, since this will become a significant aspect of our
consideration of flys in the theatres of America.

The Flys.—Surrounding the off-stage space, usually at a mean
height of about eighteen to twenty feet from the stage floor, were
the flys. Unlike the theatres of today, the area above the stage was
open and unobstructed to the roof timbers of the theatre. Properly
speaking, the flys or fly floor were formed by a cat-walk which
surrounded the open space above the stage floor. From this cat-walk
were worked the flown scenic pieces, and the various flying effects
which were common to the Georgian theatrical performances. In the
following discussion, therefore, a distinction is made between the
flys, or cat-walk, and the fly well, the area above the stage which
was surrounded by the flys.

Hanging Pieces.—The relationship of the flys, fly well, roof
timbers, and hanging pieces may be seen clearly in Figure 52,
Foulston’s Transverse Section of Flys, and in Figure 55, a
longitudinal section through the flys. We have discussed four of the
hanging pieces in previous portions of this chapter: (1) the front
curtain, (2) the act drop, (3) the borders, and (4) the roll drops,

Foulston, Plate 37.
which were rigged in precisely the same manner as was the act drop. Figure 52 illustrates the final class of hanging pieces typically suspended from the flys of the English theatre. Here can be seen the mechanism for accomplishing ascents and descents.

Foulston's rigging for the descent of a Goddess, shown in Figure 52, closely resembles the rigging employed by Renaissance scene designers in Italy and by English designers from the time of Inigo Jones. The mechanism is both simple and effective. The Goddess is seen standing on a small platform, which is carefully masked by painted clouds. This platform, with the Goddess upon it, is seen in side elevation in Figure 55. Lines from the platform run up to sheaves attached to the roof timbers of the theatre, and from there to a winch on the fly floor (cat-walk). With minor variations, which include the addition of counterweights to supply mechanical advantage to the winch, this rigging is typical of the rigging used for virtually all flying effects during the Georgian period. As we can readily determine from Foulston's drawings, the roof timbers of

65In Figure 52 (Fig. II) can be seen the small machine upon which the Goddess stood. It is supported by lines (C, C) which, running through pulleys attached to the tie-beams (roof timbers) of the theatre, were operated from a winch (Fig. I) on the fly-floor. Figure 55 shows the side elevation of the same machine. Here the platform (D, D) and the pulleys (C, C), actually double blocks or sheaves, are shown in greater detail, as is the winch (Fig. III) which operated the machine. Because of the dependent weight, this winch was designed in such a manner that two men could operate it simultaneously.
the theatre served much the same purpose in the Georgian theatres as
the grid-iron serves in theatres of the present day.

Treatment of the Backscene on the English Stage.--As we have
seen in our consideration of wings and flats, two methods were
employed in the Georgian theatres of England to move wings: the
English system, in which wings were drawn off the stage laterally by
hand, and the French system, in which the wings were harnessed to
understage drums and were drawn off simultaneously as new wings were
pulled on into view. In the English system, the backscene was also
drawn off to the sides of the stage, by hand. The French system of
handling the backscene was not transposed to the English stage. An
examination of the French practice readily explains the reason for
this.

In the French system, the backscene was brought up from below
the stage floor. Riding up from below in vertical grooves
(costières), the French backscene, or forme, ascended and descended as
the wings were drawn off and on. This system was widely employed on
the French stage during the late seventeenth, eighteenth and
nineteenth centuries. That the forme-type backscene is absent from
English playhouses which experimented with French scenery methods is
due largely to the nature of the understage in English theatres, and
to a philosophical difference between English and French theatre
practitioners.
An examination of the English understage area quickly illustrates why the ferme found little favor in English theatres. Saunders, in writing of English theatres in 1790, noted that "instead of 6 or 7 feet, the height usually given under the stage, I would propose 20 or 30 [feet]. This would give opportunity of much assistance to the machinery."66 (The italics are mine.) The typical stage-floor to fly-floor height in English theatres was 18 to 20 feet.67 Since the typical understage excavation, according to Saunders, was only 6 to 8 feet, the extent of the alteration necessary to accommodate the descent of an 18 to 20 foot backscene may well be imagined.

An article which appeared in All The Year Round in 1863,68 indicates the extent of the structural alterations to a Victorian theatre in order to accommodate the chariot and pole system of the French:

In plain English, Mr. [Charles] Fechter [for Henry Irving, at the Lyceum Theatre] has recently caused to be constructed in Great Britain, ... a stage upon a principle entirely different from any previously tried in this country. ... Beneath the stage is another stage, at a distance of about seven

66 Saunders, Treatise ..., pp. 44-45.
67 Southern, Changeable Scenery, p. 232.
68 Quoted from Southern, Changeable Scenery, pp. 117-18.
feet, and beneath this again, at about the same distance, is the lowest floor of the theatre.\textsuperscript{69}

This alteration, however, only provided for the installation of the chariot system. There is no indication in this extremely comprehensive article that the ferme was introduced to the stage of the Lyceum Theatre.\textsuperscript{70}

\textbf{Treatment of the Backscene: A Philosophy.} — In our overall consideration of the English and French systems of scene-changing we have examined two scenic units: wings and backscene. In the two systems, the concept of wing-handling is the same, for in both the English and French method the wings are drawn off to the sides of the stage. In the case of the English theatre, no mechanical advantage is enjoyed: manpower is applied directly, one man to each wing-position. In the French theatre, wings are still drawn off to the side, but in this instance, the wings in a given setting are connected by ropes to

\textsuperscript{69}The author of this article is in error, for this system of scene changing was in use in both the Covent Garden and Drury Lane Theatres by 1812, and included as well as the chariot system a method of raising a backscene from beneath the stage floor by means of slogs, similar in effect to the French ferme and cassette system. It cannot be stressed forcibly enough, however, that these two theatres represented unique departures from English tradition and general practice, and were in no way representative of a trend in early nineteenth-century English theatres.

\textsuperscript{70}With a mean height of only 18 feet, a backscene would require an understage depth of at least 19 or 20 feet were it to descend beneath the stage. The excavation at the Lyceum Theatre, if we are to believe this account, was no more than 14 or 15 feet, clearly insufficient for the descent of a backscene.
a drum, so that all of the wings in one setting move off-stage while, simultaneously, the wings for the following setting are moving on-stage. Mechanical advantage is supplied by the drum, and by the winch or gear which operates it.

With the backdrop, however, we encounter a distinct conceptual difference. The English, following the pattern employed in the handling of wings, split the backdrop into two pieces at the center, pulling these pieces off to the sides of the stage. But the French, treating the backdrop as a single unit, lowered the entire unit through an opening in the stage floor to the cellar below. This is no mean distinction. The French concept of handling the backdrop appears to have developed from the practices introduced by the Italians in Venice, practices brought to France about 1645 by Giacomo Torelli. The English concept, on the other hand, reflects the earlier Italian practices of designers such as Scamozzi and Buontalenti, practices brought to England by Inigo Jones. Precisely how this conceptual distinction is important to the American theatre, and how it relates to a consideration of the flys in that theatre, is taken up below.

Considerations of American Practice.--Let us turn now to the treatment of the area above the stage in the American theatres of the Georgian period. We shall consider (1) the area above and the area surrounding the stage of the Chestnut Street Theatre, the flys,
(2) the implications of this backscene treatment, and (3) scenic and property pieces hung from and worked from the flys.

The Flys.—Figure 24, Henry Warren's plan of the Chestnut Street Theatre at the level of the Painting Room, firmly establishes the presence of flys in that theatre. From the manner in which they have been drawn by Warren, it appears evident that the relationship of the flys to the stage in the Chestnut Street house was identical to the relationship found in English theatres of the same period. In the conjectural reconstruction of the Chestnut Street Theatre (Appendix C) the height of the flys has been placed at about twenty feet from the stage floor, a distance entirely consistent with English practice.

Backscene Treatment and the Flys.—For a description of flys in the American theatre, we must turn from the Chestnut Street playhouse to a consideration of the theatre in Richmond, Virginia. While at first this examination may appear to be a digression from our examination of the Chestnut Street Theatre, it will soon become clear that practice at the Philadelphia establishment closely paralleled practice in the Richmond theatre.

Except for two spectacular fires, the history of the early theatrical activity in Richmond is uneventful. In 1786, Alexander Quesnay opened what McNamara has termed a "fairly elaborate and well
equipped playhouse, seating some 1,000 spectators. This theatre burned to the ground on the night of January 23, 1798. A new theatre was built in Richmond following the turn of the century, and on the night of December 26, 1811, this building, a wooden structure like its predecessor, was burned to the foundations.

Durang, who was at the theatre on the night of the fire wrote of the event in detail. From his account we learn a great deal about the method of scene-handling employed by Alexander Placide, manager at the Richmond theatre:

The new play went off extremely well. The first act of the pantomime "Raymond and Agnes" had closed. It ended with the interior of the robber's cottage. A rude, two-wick lighted lamp, incidental to the scene, was suspended from the ceiling of the cottage, as a light to the room. When the drop curtain fell upon the act, the usual hurry in such cases to get the curtain up as soon as possible, the clearing of the stage and the resetting of the scenery took place. The lamp was carelessly hoisted without extinguishing the light. . . . The cord to which the lamp was attached was knotted, and worked badly through the pulley, and such was the oscillation of the lamp, on being hoisted up, that it was brought in contact with the thickly-hanging scenes. . . . The scenes hung very close over the stage. There were no flats used - that is, scenes that are drawn off at either side of the stage - as is now done in our theatres. The scenes were all worked on rollers, or drawn up on frames above the stage borders, by the aid of counterweights. The wings, as they are technically called, were drawn off at the sides by hand. At the place where the fatal lamp was suspended, some paper scenery hung,
which had been painted by Mr. West for his benefit, a few evenings previously.

... At this moment the cry "The scenery is on fire above" passed in undertones behind the scenes. ... The scene at the time was in the first grooves, that is, low down, leaving only one entrance to the stage on either side. The scene that was to be discovered next was arranged at the time.

... Cook, the carpenter, and his hands, ascended to the carpenter's gallery, whence the scenes were mostly hoisted by halyards or cranks, and cut the ropes by which those scenes which were on fire were attached and worked ... 72

Let us first consider Durang's description of the manner in which the backscapes were worked in the Richmond theatre:

There were no flats used - that is, scenes that are drawn off at either side - as is now done in our theatres. The scenes were all worked on rollers, or drawn up on frames above the stage borders, by the aid of counterweights. The wings, as they are technically called, were drawn off at the sides by hand.

Here we learn that while wings and borders were in use in the Richmond house, flats were not employed in the backscene. In their place were either drops, which worked on rollers, or frames which were flown above the stage by a counterweight system, "hoisted by halyards or cranks." 73

What is of great interest to us, in our present study of the


73 Quite possibly this system never gained general favor, for in using the phrase "as is now done in our theatres," Durang implies that in 1854 the employment of flats in the backscene was still the rule, rather than the exception. That the system did gain favor in at least one other theatre is seen below.
Chestnut Street Theatre, is that in 1817 the same practice which
Placide employed in the Richmond Theatre was employed in that
Philadelphia house. This use of the flown backscene is deduced from
William Warren's sketch, given in the present study as Figure 56.7
Here we see a working drawing of a backscene about 19 feet high by 20
feet wide. As drawn, the frame is designed in one piece, to be flown
by two ropes bridled to the top of the frame. There is no doubt that
this frame, with its bridles, represents an arrangement similar to
that described by Durang in Richmond.

May we conclude, then, that flown scenes at the Chestnut
Street Theatre were the rule, rather than the exception? It
is an appealing thesis. Support is lent to such a thesis, through
analogy, by the report of John Utt, the prompter at the Richmond
theatre on the night of the 1811 fire. Utt testified to the board of
inquiry that "there were thirty-five scenes at the time [of the fire]

7 The presence of the doorway in the sketch shown in Figure 56
suggests that this unit is not a backscene, in the strictest sense of
the term, but rather what Rees referred to as an open scene, "framed
exactly like the other" scenes, the only difference consisting "in
parts of the scene being left open to show another behind, which
terminates the view." Here, of course, the flat drawn by Warren is
not left open to "show another behind," but is rather opened to permit
the passage of actors. I believe we are not too far amiss in calling
this piece a backscene in view of the context, however.
hanging over the stage, exclusive of the flies, which represented the roofs, skies, &c." The Richmond theatre contained not a few isolated drops hung above the stage, but a complement of thirty-five scenes, "worked on rollers, or drawn up on frames above the stage borders, by the aid of counterweights." Moreover, Durang tells us that "there were no flats used." Implicit in these statements is the hypothesis that the two systems of handling scenes, i.e., the use of flats drawn off to the sides of the stage, and the use of scenes which were operated as a single unit from the flies above, were conceptually mutually exclusive, and that in a theatre which employed one type of scene-shifting, one would not expect to find the other system in operation. Pursuing this speculation to its logical end, it could be concluded that the Chestnut Street Theatre, since it employed flown scenes, did not employ flats in the backscenes.

Such a conclusion is probably erroneous, however, despite the evidence from the Richmond theatre. On August 7, 1816, John Worroll, the New England scene painter, wrote to Henry Warren in Philadelphia, with details of 

Aladdin, which he had recently see in England, details which were for Henry's use in preparing the setting for the January 1, 1817 opening of that production in Philadelphia. "Your Brother,"

75Here we find the term "flies" used in a highly restrictive manner, for Utt clearly uses the expression synonymously with the term "borders."
wrote Worrell, "apprehensive that you might be out of work before he returns, wishes you to paint this pair of flats." Appended to this letter is a note from William Warren, which reads "Let Bouvard prepare the flats according the the sketch ... they are to be used in the second Groove."

Clearly, the letters of John Worrell and William Warren describe a backdrop made of flats working in grooves. The implication is quite apparent that at least in the Philadelphia theatre, both the flat-and-groove system and the overhead-flying system were employed, probably simultaneously, in the same theatre.

Implications of the Flown Backscene. — The account of the theatre in Richmond, Virginia, and in the collateral evidence from the Chestnut Street Theatre in Philadelphia may well testify to a uniquely American innovation in backdrop handling. As we have seen, standard English practice during the seventeenth, eighteenth, and early nineteenth centuries employed two methods of dealing with the backdrop. Where flats (shutters) were employed, the backdrop was drawn off to the sides of the stage. Where drops were employed, the drop, on a roller, was rolled up into the flys.\footnote{In his description of the three types of flats employed on the English stage, Rees verifies the employment of only two methods of backdrop treatment. According to Rees: "The flat scene [that is, scenes which are not set-scenes, set-pieces, ground-rows, or wings,) are of three kinds; the first of these are drops or curtains, where the canvas is furled or unfurled upon a roller, ... [the second of}
French system of ganged wings was employed, backscene flats, drawn off to the sides of the stage, were commonly used.

With the evidence of a flown backscene in America during the period 1794-1820, we encounter what appears to be a variation on the French ferme system, a variation which, so far as I have been able to determine, has no counterpart in the English theatre. No known evidence exists to record the introduction of the flown backscene into American theatrical practice. Therefore, we must formulate a hypothesis to explain the presence of this device on the American stage:

1. Alexander Placide, the French actor, manager, and wire-walker, managed the Charleston theatre from 1800 to 1812. During that time, he developed a summer circuit, which included, among other theatres, the ill-fated Richmond house. Since Placide and his troupe came to America from France, it may be assumed that Placide was thoroughly familiar with the French method of handling the backscene through the employment of the ferme.

2. Conceptually, the ferme represents a single-unit system, while the backscene on the English stage, split into two pieces, represents a double-unit system. Familiarity with the ferme or single-unit system would tend to encourage these] are called flats. In these the canvas is stretched upon wooden frames, which are generally constructed in two pieces, so as to meet in the middle of the stage, . . . [and the third of these] is the profiled or open flat. This is used for woods, gateways of castles, and such purposes: it is framed exactly like the other . . . " (Rees, Vol. XII, "Description of the Scenery." The article is undated, but references in the text indicate that it was printed sometime after 1811.) No mention is made here of striking flat scenes by flying them above the stage in a single unfolded unit, only of rolling them on rollers or drawing them off to the sides of the stage.
its employment where possible. The advantages of this system are numerous: a single man could change the backdrop; on-stage storage space for backscenes would be cut to a minimum, a great advantage in a small theatre; and, finally, the appearance of the backdrop would be greatly enhanced, since there would be no center dividing line where two flats joined.

3. Finally, once granting the idea of a single-unit backdrop, there is little conceptual difference between dropping the unit through the stage floor and flying it up into the fly-well. The principles and machinery, with very little adaptation, are virtually the same. Either up or down, a drum, counter-weight system, and lines must be employed. Either up or down, the backdrop vanishes as a single unit. Moreover, the machinery already in use for the front curtain (see Figs. 48 and 52) could be adapted or modified with little effort to accommodate a backdrop. Such modification had already taken place to accommodate groups of borders (see Fig. 55).

It is quite possible, of course, that Alexander Placide was not the man who introduced this system of a flown backdrop into American practice. Only that the Richmond theatre represents what appears to be the first instance of such a device in America suggests that he was. Placide was a familiar figure in Philadelphia, and it would hardly be stretching plausibility to suggest that he and Warren were acquaintances, if not actually, friends. This could explain the presence of Placide's system in the Philadelphia theatre. However hypothetical this explanation of the introduction of the flown backdrop to the American stage c. 1811 may be, it will have to suffice until additional evidence is uncovered, for of this development
nothing more is known. That the device was employed in two theatres in America is indisputable, however.

Scenic and Property Pieces Hung from and Worked from the Flys.

--For a description of pieces worked from the flys we must turn to the evidence from the Richmond theatre. There is nothing extraordinary about the Richmond theatre account presented by Durang, and in the light of collateral evidence, it seems reasonable to assume that the account describes standard American practice.

The exact manner in which flown units in the American theatres were rigged is not recorded, but from the testimony of L. Rice, property man at the Richmond theatre, presented before the board of inquiry into the Richmond theatre fire, we may develop a construct of the practice. From testimony given at the board of inquiry we learn:

The following persons were examined by the committee of investigation: L. Rice, the property man; . . . saw then the lamp [which caused the fire] hoisted up, and pointed out the danger of it being thus put away [i.e., still lighted] . . . Mr. Cook, the principal carpenter, said he saw the carpenter (Yoch) attend to Rice's suggestion. . . . The lamp was moved by two cords, and worked over two pulleys inserted in a collar-beam of the roof, . . . John Utt, the prompter, said there was one paper scene of West's hanging about six or eight feet behind the lamp. There were thirty-five scenes at the time hanging over the stage, exclusive of the flies, which represented the roofs, skies, &c. These were all canvas paintings on one side.77

77Durang, Vol. I, Chapter XLVII, p. 94ff.
From Rice's testimony we learn that the lamp, which caused the fire, "was moved," i.e., flown up into the fly-well, "by two cords, and worked over two pulleys inserted in a collar-beam of the roof."

Here, then, we find the collar-beams of the Richmond theatre being employed in the manner that the grid-iron in a theatre of today might be employed, serving as the mounting position for sheaves and pulleys. This method of flying pieces from the roof-beams of the theatre so closely parallels English practice, from which it probably was derived, that we may hypothesize the wide-spread employment of the practice throughout the American theatre of the period.

Perhaps the most germane example of actors being flown, and there are many such examples to draw from, is to be found in the Chestnut Street Theatre production of Mother Goose, the immensely popular English pantomime. This pantomime was staged in Philadelphia and Washington by the Warren and Wood company in 1810. The Washington National Intelligencer for July 20, 1810, reported that "Mother Goose appears descending from the skies mounted on her favorite bird." From the acting edition of Mother Goose, published in Philadelphia in

Properly speaking, the arrangement at the Richmond theatre differs slightly from English practice as exemplified by the Foulston drawings. Foulston (see my Figs. 52 and 55) indicates that the pulleys were mounted on the tie-beams of the theatre, rather than on the collar-beams. The disparity in specific mounting positions is one of degree, however, rather than one of concept.

OSUTC Film No. 93.
1810, which reflects the staging of the pantomime as "performed with distinguished success at the [Chestnut Street] Theatre, Philadelphia," it may be concluded that this was indeed the manner by which Mother Goose made her first entrance in the New Theatre production.

No specific information remains to provide a description of the manner in which this ascent and descent was accomplished. Therefore, we must develop a conjectural solution from the evidence at hand. Productions like Cinderella and Mother Goose establish beyond doubt that the Chestnut Street company's theatres were equipped to fly performers in bowers, cars, chariots, and sea shells. The manner in which lighter scenic pieces were flown is clearly demonstrated by the Richmond theatre Board of Inquiry material. It seems entirely reasonable to speculate, in the light of this evidence, that the mechanists of the Chestnut Street company modified this light rigging to accommodate the weight of an actor.

Conclusions.--Specific evidence pointing to the presence of flys in the Chestnut Street Theatre comes to us from Henry Warren's plan of the theatre at the level of the Painting Room (fly) floor (Fig. 24). These flys, like those in English theatres of the Georgian period, were comprised of two areas: the fly-well, the open area rising above the stage floor, and the fly-floor itself, literally a cat-walk surrounding the off-stage space on two or three sides at a height of about twenty feet.
In the fly-well hung the borders, usually sky, ceiling, and foliated pieces, employed to mask the tops of the wings, and to provide continuity to the setting below. Also hung in the fly-well were drops on rollers and, in some of the American theatres, the Richmond and Chestnut Street theatres, for example, a single-unit backscene, built as a large canvas covered frame. The possibility that these flown backscene-frames represent a uniquely American innovation, probably derived from the similar concept of the French ferme, seems viable. There is no record of this practice having been employed in England during the corresponding period.

Evidence from the Richmond theatre indicates that on the fly-floor stood the winches and drums used to operate the borders, the backscenes and drops, and the various machines employed in ascents and descents. Because of the apparent similarity of practice in the Richmond and Chestnut Street theatres we must conclude, through analogy, that the flys of the Chestnut Street house contained essentially the same machinery as did those of the Richmond theatre. So similar is the machinery in the Richmond theatre to that described and illustrated by Foulston that we must conclude that American practice in flying represents a continuation of English practice. It must be further concluded that these practices represent a point in a development at least several hundred years old, and that little change
from rigging practices of the seventeenth century is to be found in the early years of the nineteenth century.

We have examined each of the scenic elements of the Chestnut Street Theatre specifically and, where possible, of the American theatre generally. Each element has been considered as it reflects similarity to, or modification of, corresponding English elements and practices. Only an examination of the machinery beneath the stage and the Chestnut Street Theatre's stage-lighting equipment remains.

Traps and Stage Floor Openings

To all but the most initiated, openings in the stage floor have always proved something of a mystery. Seen from the audience, the stage appears to open and swallow an actor or a piece of stage scenery. For the actor, traps have always held a terror, for in crossing a trapped stage or in descending through the stage floor, the actor is placed at the mercy of the understage crew. The following examination of traps and stage floor openings in the English theatre may eliminate some of the mystery surrounding one of the stage devices most important to the theatres of Georgian England and may clarify our understanding of traps on the American stage.

**English Traps and Stage Openings**—The placement of traps on the stages of English theatres appears to have been governed by no
hard and fast rule, but there appears to have been a general consistency in trap placement from theatre to theatre.

Few ground plans of the Georgian and Regency periods indicate the placement of traps on the stage. Of three plans which do show trap placement, two, the plans of the Royalty Theatre, Wellesclose Square, London, and plans of Foulston's Plymouth theatre, indicate a trend in placement, while Rees' plans for a stage80 represent an arrangement of traps as apparently atypical of English practice as are Rees' descriptions of stage machinery generally.

The plan of the stage at the Royalty Theatre, Wellesclose Square, built in 1787 and given in the present study as Figure 57, shows a stage with five traps. From down-stage to up-stage, these traps consist of:

1. A pair of corner traps, located left and right, just up-stage of the proscenium line;

2. A grave trap, located just down-stage of the first grooves;

3. A trap, slightly smaller than the grave trap, located up-stage of the first long grooves (third grooves);

4. A trap, similar in size to the corner traps, located up-stage of the second bank of long grooves (fourth grooves).

In Figure 58, Foulston's plan of the framing of the Plymouth

80 Rees, Cyclopaedia, Vol. XII, Pl. IX, "Construction of the Stage."
Figure 57. Ground Plan, Generally Presumed To Be of the Royalty Theatre, Wellesclose Square, London, ca. 1786. Original in the Victoria and Albert Museum. Photo reproduced courtesy of Victor Glasstone.
theatre stage, an arrangement differing only slightly from that in the Royalty Theatre, is to be found. Again, two corner traps appear, but unlike those of the Royalty Theatre, these traps are located down-stage of the curtain line, rather than up-stage of it. Like the grave trap in the Royalty Theatre, the corresponding trap in the Plymouth theatre is located on the center-line of the stage, just down-stage of the first grooves.

There is no up-stage trap in the Plymouth theatre which corresponds directly with the up-stage traps of the Royalty Theatre. There is, however, a large central up-stage trap, 7 feet 4 inches by 5 feet 6 inches, located at the rear of the stage. This trap is located directly above the carpenter's shop, and may well have been employed in the movement of set pieces, etc., from the shop to the stage floor. When not in use, a timber was placed across this trap, the whole covered with a section of flooring. The removable timber, indicated by a dotted line, is shown in Foulston's plan of the stage floor, Figure 57.

Evidence from later materials indicates that trap arrangements similar to those cited above, perhaps with local variations, prevailed in the English theatre well into the last quarter of the nineteenth century. A drawing from The Magazine of Art for 1859, executed by William Selbin, Jr., shows the working of a typical stage trap of about 1859. The placement of this trap indicates that this late in
the century, trap placement remained consistent with earlier practice. 81

E.O. Sachs, giving a "plan of the old-style stage floor" in an article for Engineering (February 28, 1896), indicates a relationship of corner traps to grave traps similar to the relationship seen in the Plymouth and Royalty theatre examples. The coincidence of trap placement in English theatres for a period of more than one hundred years suggests a firmly established practice.

Traps and Their Concomitant Machinery.--For a description of traps and their machinery, we must turn to Rees and Foulston. Rees presents two diagrams of the English trap, given in the present study as Figures 59 and 60. 82 Figure 59 is an elevation of the trap, from the vantage point of a viewer standing in the pit, looking toward the rear of the theatre, while Figure 60 presents the same trap as viewed from stage left, looking toward the right side of the stage. Let us first consider Figure 59.

"The trap consists of a horizontal board fitted to the aperture above," wrote Rees' writer, "and under this is another, with grooves to fit the posts (V,V), so that the horizontal position of the

81 This drawing is reproduced as Plate 58, in Southern's Changeable Scenery. The trap is located on the center-line of the stage, just down-stage of the first grooves.

82 Rees, Cyclopaedia, Vol. XII, Pl. IX, Figs. 3 and 4, "Framing of Traps."
Figure 59. Front Elevation of an English Trap, ca. 1811. Rees' Cyclopaedia, "Dramatic Machinery," Plate X. Library of Congress. OSUTC Film No. 73.

Figure 60. Side Elevation of the English Trap Shown in Figure 59. Rees' Cyclopaedia, "Dramatic Machinery," Plate X. Library of Congress. OSUTC Film No. 73.
trap may be preserved while rising and sinking." This board, literally the floor of the trap, and the stabilizing board below it, are shown at (S). "In front of the posts (V,V)," Rees' writer continues, "are two others (U,U), to carry a cylinder (T), turned by a winch to raise or sink the trap." This winch, for safety's sake, is fitted with a catch and ratchet wheel.

From Rees' article we also learn that "besides the moving traps, each aperture is closed by a board supported by an upright piece of wood, or similar contrivance, when the traps are not at work." For an explanation of this "upright piece of wood" we must turn to Figures 61 and 62, Foulston's plans for a trap.

Figure 61 is Foulston's longitudinal section, taken from (C) to (D) in Figure 58, showing the understage area and the trap machinery. In this view can be seen the winches which operate the trap (E,E), and the "upright piece of wood" (I) which supports the board used to close the trap opening when the trap is not in use.

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83Material quoted in the above passage is from Rees, Vol. XII, "Framing of the Traps." A comparison of Figures 59 and 60 should eliminate any confusion the reader might experience at this point. The several elements of the trap mechanism are similarly lettered in each figure. In Figure 60 will be seen the trap floor and its stabilizing member (S), the posts which it rides between (V), and the winch (T) and its support columns (U). A great mechanical advantage is enjoyed in this system of rigging, for we learn that "the cords" which run from the winch (T) to the platform (S), "are generally made fast to the beams or joists, at the roof of the stage cellar, and pass over a pulley at each end of the trap, to double the power of the person who turns the winch."
Figure 61. Longitudinal Section of Stage, Showing Understage Machinery. Foulston’s Public Buildings Erected in the West of England, Plate 33, Figure II. Library of Congress. OSUFC Film No. 70.

Figure 62. Transverse Section of Stage, Showing Understage Machinery. Foulston’s Public Buildings Erected in the West of England, Plate 34, Figure II. Library of Congress. OSUFC Film No. 70.
In Figure 62, Foulston's Transverse Section of the area beneath the stage is given. Here again, the winches (H, H) are shown, but in this drawing the "upright piece of wood" which supports the trap-cover is designate (L). From the position of this support (L), it appears that the support was moved manually to permit the lowering of the trap cover. We find a similar system shown in Contant et Filippi's Parallèle des Principaux Théâtres Modernes, with the support hinged to the trap cover in much the same manner as Foulston indicates in Figure 62.  

Rees' writer indicates that seldom, if ever, were traps counterweighted. Yet Foulston's plans of the trap mechanism (Figs. 61 and 62) clearly indicate a simple yet ingeniously contrived counter-weight system.  

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8 Clement Contant et Joseph de Filippi, Parallèle des Principaux Théâtres Modernes de l'Europe et des Machines Théâtrales (Paris: A. Levy Fils, 1860), Vol. III, Pt. 33, Fig. 2.

85 In Foulston's transverse section, Figure 62, two single winches (H, H) are shown at the level of the first floor beneath the stage. At the level of the second sub-floor is a long drum, which is connected to the winches above by ropes. Examination of the arrangement of these ropes, as shown in the longitudinal section, Figure 61, indicates that while the ropes from the counterweight and trap platform are wound around the upper winch in a clockwise manner, the line from the winch to the drum below is wound in a counter-clockwise manner around the drum.

As we look at Figure 62, let us assume that the winch and drum wound in the clockwise-counter-clockwise manner is to our right. The relationship of the windings on the drum and winch to our left are the reverse of those on the right side of the trap: the drum is wound in a clockwise manner, the winch wound counter-clockwise. Experiments
mechanism is atypical of traps throughout the English theatre? This is a difficult question to answer, for there is little evidence available which describes trap mechanisms from periods earlier than Foulston. Quite likely Rees' writer is correct to a certain extent. Foulston's designs may well mark the introduction of new forms of trap machinery to the English stage, for during the years following the completion of the Plymouth theatre, counterweighted traps became widely employed in the English theatre.

Contant et Filippi record a typical English trap system, given in the present study as Figure 63.\textsuperscript{86} In the mechanism illustrated by this figure, a rope passes from the bottom of the trap, over a pulley set into the bottom of the stage floor, and down to a drum. The line from the left-hand side of the trap is wound around the drum in a counter-clockwise direction, as is the line from the right-hand side of the trap. A third line, shown coming off the bottom of the drum,

undertaken by the present author with a small model indicate the reasons behind such an arrangement. As the winch on the right is turned clockwise, raising the trap, the right-hand counterweight descends, providing a mechanical advantage to the winch. Because of the counter-clockwise motion of the drum below, power is transmitted to the left-hand winch, even though no operator is present on this side of the trap. The left-hand counterweight rises with the trap, thereby keeping the trap balanced as it ascends. When the trap is lowered the process is reversed; the left-hand counterweight descends with the trap as the right-hand counterweight ascends to keep the trap in balance.

\textsuperscript{86}Contant et Filippi, Vol. III, Pl. 33, Fig. 7.
Figure 63. Mechanism for an English Trap. Contant et Filippi's Parallèle des Principaux Théâtres Modernes, Deuxième Partie: Machines Théatrales, Système Anglaise, Plate 33, Figure 7. Library of Congress. OSUC Film No. 2049*.
provides power for the whole. When the drum is turned, the trap rises or descends.

Other Stage Floor Openings: Cuts and Sliders. - Closely associated with traps on the British stage were the stage-floor openings called cuts, each with its cover, or slider.

Figure 64 gives a Transverse Section of the understage area of the Plymouth theatre, taken from points (E) to (F) in Figure 58. Here we see the floor of the stage and the two levels of working galleries below. The uppermost gallery, as we have seen in our examination of traps, is given over to machinery, traps, the carpenter's shop, and dressing room space, while the lower level appears to have been utilized as a cellar, possibly for storage and for the placing of pieces of machinery too large to be accommodated at the mezzanine level above.

In Figure 64 we see the sliders, literally movable stage-floor sections. The small inset below the stage section presents a detail of the slider and part of its mechanism. The slider mechanism was comprised of a three-element complex: (1) the sliders, (2) the locking levers, which locked the sliders into place when in the closed position, and (3) the winches and ropes which activated the sliders. The open space obtained by pulling the sliders into the open position, off-stage, was called the cut.

In the detail shown at the bottom of Figure 64 can be seen the
Figure 64. Transverse Section of Stage, Showing Understage Machinery. Foulston’s Public Buildings Erected in the West of England, Plate 34, Figure 1. Library of Congress. OSUTC Film No. 70.

Figure 65. Longitudinal Section of Stage, Showing Understage Machinery. Foulston’s Public Buildings Erected in the West of England, Plate 33, Figure 1. Library of Congress. OSUTC Film No. 70.
slider, fitted into place, flush with the stage floor proper, and the locking lever (I) which kept the slider in place. In this detail the locking lever is shown in the closed position. When the long arm of the lever was rotated upwards toward the stage floor, the slider, directly above the locking lever, was permitted to drop downward slightly, just enough to clear the on-stage edge of the permanent stage floor. Operation of the winches (F) then drew the slider under the stage floor, thus exposing the opening of the cut. The hook by which the winch-lines were attached to the slider is shown in the detail (Fig. 64). When it became necessary to close the sliders, the lines from the winches (F) were reversed and the sliders were pulled into the closed position. The locking-lever (I) was then pulled downward away from the stage floor by a stage-hand, locking the slider firmly into place.  

The uses to which the cut and slider system appears to have been put are threefold:

1. Small scenic pieces could be thrust up through the stage floor;

2. Movable pieces, such as ships and chariots, could be worked in the cuts from below the stage. Foulston

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67 This system, with variations added to the winch system to obtain greater mechanical advantage, is described by Content and Fillipi (Vol. III, Plate 27), and by E.O. Sachs (Engineering, February 28, 1896), Figures 20 and 21. From the evidence supplied by these later authors, the conclusion is drawn that the design presented by Foulston (Fig. 61) represents the prototypal form of the system.
indicates in Figure 64 the small cart (K) which was provided for this purpose. When used in this manner, the sliders covering a cut upstage of the backscene in use would be opened. The cart (K) would then be moved into position below the cut, and attached to the winches (F) by means of the rigging lines. At the appropriate moment, the backscene would be opened, revealing the ship or chariot as it moved across the stage. A small scenic unit might even be set on the cart off-stage, to be drawn on at the appropriate moment in the stage action. In Figure 65, Foulston has developed further the section seen in Figure 64, showing a longitudinal section of the stage, from points (A) to (E) in Figure 58. In this view can be seen the operating winch (W) and the cart (K) in a stored position, somewhat downstage of the cut. The end of the closed slider, seen in section, is located at the level of the stage floor, directly above the winch (F).

3. Stairways might be moved into position below the cut, providing for descent beneath the stage.

A fourth possibility suggests itself, that the flats or backscene might have been run up from below the stage through the cuts. This system was employed briefly at Covent Garden and Drury Lane during the Regency, but the lack of machinery to accomplish scene-handling in this manner suggests that during the period under consideration, this practice was not followed at the Plymouth theatre.88

American Traps and Stage Openings. Until the discovery of the Warren Scrapbook, the presence of traps on the stage of the Chestnut Street Theatre could only be inferred on the basis of need and

88 This system of raising the backscene, in which slots, literally vertical grooves, were employed, closely resembled the French system of casettes and formes. Except for the instances noted, this system was not employed in England prior to about 1850. See Southern, (Changeable Scenery), p. 216.
possible adherence to English practice. In Figure 23, Henry Warren's plan of the stage level of the theatre on Chestnut Street, however, four traps are clearly shown. Three traps are indicated in a position between and on a line with the first grooves, while the fourth and much larger trap is shown on a line with and between the third grooves.

In size, the traps at the Chestnut Street Theatre appear to have varied slightly from those of the Plymouth and Royalty theatres, but the placement of these traps on the stage is virtually identical to that of the English theatres. Across the front of the stage, on a line with the first grooves, were two corner traps, left and right; on the center-line of the stage, a third trap, apparently of the same size as the corner traps.\footnote{Since Warren's plan (Fig. 23) is not drawn to scale, it is quite possible that the grave trap shown is actually about the same size as corresponding English traps.} The large center trap, located between the third grooves, suggests the carpenter shop trap of Poulston's theatre, but the function of this trap in the New Theatre must have differed, for according to Warren's plan (Fig. 23), the shop was located "next the roof."

As has been the case with so many of the scenic devices of the Chestnut Street Theatre, no information from the Chestnut Street materials relates to the employment of traps. There is no mention of

\footnote{The large center trap, located between the third grooves, suggests the carpenter shop trap of Poulston's theatre, but the function of this trap in the New Theatre must have differed, for according to Warren's plan (Fig. 23), the shop was located "next the roof."}
traps in the prompt books, nor do the Warren Letters refer to them. A delightful account of traps on the American stage is given in the Norfolk, Virginia Herald for April 16, 1801. The account is of special interest in that it provides one of the few hints suggesting the mechanics of the American trap of this period:

It is recommended to the manager to have a regular examination of the machinery below the stage; for on Tuesday evening, owing to the ponderosity of Mrs. Rowson, the springs of a trap door gave way, and not only the leading lady disappeared, but she carried little Mrs. Stuart down also.

Little more is to be learned concerning the mechanics of American traps. The statement that the "springs of a trap door" gave way, dropping Mrs. Rowson into the cellar below, suggests that either the writer for the Norfolk Herald had no concept of how traps worked, or that he described a method of trap operation not employed on the English stage.

There is nothing in the evidence from the English theatre to suggest the employment of "springs" with traps or trap covers. Two courses of speculation confront us. If the author of the article which appeared in the Norfolk Herald wrote from ignorance, then we are faced with a complete lack of knowledge concerning the mechanics of American traps. If, however, the author of the Herald article employed the term "springs" in an attempt to identify the mechanism
which held shut the trap in its closed position, we must question the nature of these "springs." It is the belief of the present author, predicated on a knowledge of the English system of cuts and sliders and on a certain amount of intuition, that the trap cover referred to was held in place by some variation of the locking mechanism for sliders in the English theatre. That this adapted locking device consisted of a spring seems highly unlikely, but it is entirely reasonable to conjecture that a support system or locking device which held the trap-floor in place by pressure upwards, was employed.

Conclusions.---Here, for the first time, it has been possible to demonstrate conclusively the presence of traps on the stage of the Chestnut Street Theatre; however, the precise manner in which these traps were operated and employed cannot be determined. Regardless of this, the fact that these traps were disposed in the same manner as those of English theatres of the same period suggests that the employment and rigging of American traps were probably quite similar to the rigging and employment of traps in England. Quite likely in the early years of theatrical activity in America, traps were not counterweighted. It seems plausible, however, that in a theatre so progressive as the Chestnut Street, counterweights would have been employed.

The evidence from the Norfolk theatre (Norfolk Herald article) suggests the use of a "spring" locking mechanism not known to the
English theatre. However, this evidence appears extremely ambiguous, and until additional evidence concerning this device is discovered, the conclusion must be drawn that some variation of the locking mechanism for sliders was employed in America, but without the use of springs.

Stage Lighting: Machinery and Practice

The history of stage lighting theory and practice and of the instruments employed in lighting the stages of Georgian theatres of England and America has yet to be written. English and Continental examples of stage lighting equipment are also conspicuously absent from the iconographic materials of the period. From the scant materials available, the following discussion has been pieced together.

Stage Lighting: English Practice.--Fortunately, both Abraham Rees (Cyclopaedia) and Denis Diderot, in his Encyclopédie90 recorded descriptions and illustrations of one of the period's most important pieces of stage-lighting equipment, the wing ladder. Rees wrote of the wing ladder:

To give a sufficient light to the stage side lights are used, as well as footlights: these the side lights are generally placed between the wings to turn

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90Denis Diderot, Encyclopédie, ou Dictionnaire raisonné des sciences, des arts et des métiers, par une société de gens de lettres (Paris: Brisselin [etc.], 1751-65); and the supplement entitled Recueil de Planches, sur les sciences, les arts libéraux, et les arts mécaniques, avec leur explication (Paris: Brisselin [etc.], 1762-72).
upon a hinge, for the purpose of darkening the stage when necessary. . . . The apparatus consists merely of an upright post, to which is attached a piece of tinned iron, forming two sides of a square, and moveable upon joints or hinges, and furnished with shelves to receive the lamps or candles. Side lights are placed between every set of wings, on both sides of the stage.\footnote{Rees, Vol. XII, "Disposition of the Stage Lights."}

An extremely early example of a wing ladder is given in Diderot's \textit{Encyclopédie},\footnote{Diderot, \textit{Recueil de Planches . . .}, Vol. X, Plate XV, Figure 3.} presented in the present study as Figure 66. It is of interest to note that although written about forty years later than Diderot's work and describing an English rather than a French device, Rees' description of a wing ladder could well be applied to the Diderot drawing. Diderot shows the "upright post . . . furnished with shelves to receive the lamps or candles," which Rees described. Unlike Diderot's wing ladder which appears to have been designed to stand upon the stage floor in a fixed position, those described by Rees were designed to "turn upon a hinges," made "moveable upon joints or hinges," for the purpose of "darkening the stage when necessary."

Neither writer indicates that the wing ladders were readily movable. Diderot's drawing indicates that the wing ladder merely stood upon the stage floor; this conclusion being drawn by the present author because of the square butt of the ladder which appears in
Figure 66. Drawing of an Early Wing Ladder (Lamp Ladder). Diderot's Recueil de Planches ... , Vol. X, Plate XV, Figure 3.
Figure 66. The Rees description is undoubtedly of a later refinement, the post now being pivoted or hinged, so that the throw of light might be directed away from the scenic pieces when desired. But the term "moveable upon joints or hinges" suggests a fine movement, a turning or pivoting, and there is no indication in the descriptions of either writer that a gross lateral movement was possible.

With the information supplied by Rees and Diderot before us, let us examine a hypothetical stage setting, to determine the manner in which wing ladders were employed and to determine the relationship of these wing ladders to the scenery which they illuminated.

Suppose a scene set in three grooves. In the first and second grooves are wings, while the third grooves contain the two flats which make up the backdrop.

"Side lights are placed between every set of wings, on both sides of the stage," so in our hypothetical setting there will be four wing ladders, two behind the wings in the first grooves and two behind the wings in the second grooves. Since most of the action of the play took place down-stage of the scene proper, we may conclude that the primary purpose of these wing ladders and their concomitant wing lights was to illuminate the setting. Consequently, the wing ladders behind the first wings, providing illumination for the second wings, were placed in the most advantageous position possible, in order to provide the greatest possible illumination. The wing ladders behind
the second wings, providing illumination for the backscene, were placed as close to the center of the backscene as the offstage position of the wings permitted.

This "side lighting" or wing ladder method of illuminating the scene had one serious limitation. The relationship between a wing and its concomitant wing ladder was fixed: for the wing had to mask the wing ladder up-stage of it; therefore, the wing ladder had to be placed directly behind the wing which masked it. Thus, if the wings in the first grooves were pulled off-stage to increase the down-stage opening, the wing ladders (which supported the lamps illuminating the second wings) would also have to be pulled off-stage, in order to keep the ladders from being seen by the audience. As a consequence, as the down-stage opening increased and the wing ladders were moved further off-stage, the intensity of light on the second wings would decrease sharply. Since the illumination provided by the lamps during this period was still rather weak, the mere addition of lamps would not serve to illuminate the second wings any better. Only if the second wings were drawn off-stage, placing them closer to the first wings and the first-wing wing-ladders, could the second wings be adequately illuminated. Thus we may conclude that the relationship of the several parts of a setting was determined by the placement of the first wings in their grooves.

While the scenery and the scene were lighted by the side
lights mounted on wing ladders, actors on the forestage were lighted by footlights. As late as 1763, the forestage area was lighted by rings or hoops of candles suspended from the ceiling of the auditorium. Hoops for this purpose can be seen in Fig. 10, the interior of Covent Garden theatre, c. 1763, and similar hoops were in use in the Drury Lane theatre. In 1765, however, David Garrick at Drury Lane abolished the hoops, and Covent Garden theatre followed Garrick's lead. The stage was now lighted only by the footlights and the side lights on wing ladders.

Footlights in the theatre were an old device when Garrick arrived at Drury Lane. The earliest known illustration of footlights "shows the arrangement of a temporary stage in the Salle de la Diana at Montbrison, in 1588." The earliest English example of footlights appears to be from the frontispiece of Kirkman's The Wits, a Book of Drolls first published in 1662. Here can be seen a refinement of the earliest floats, simple wicks run through a collar to support the burning end, for in the drawing which accompanies The Wits can be seen a somewhat sophisticated lamp holding oil in a pot and sporting two wicks.

93 The Gentleman's and London Magazine for October, 1765, reported that Garrick removed "the six rings that used to be suspended over the stage in order to illuminate the house." Covent Garden, the article adds, "has been similarly improved," although with less success.

94 A watercolor drawing in the Harleian MS. 4325.
Garrick's footlights at the Drury Lane Theatre were of the oil type, while those at Covent Garden held candles for illumination and were considered inferior. According to the author of the article on lighting found in The Oxford Companion to the Theatre (p. 464), from as early as the middle of the eighteenth century, footlight troughs were counterweighted, to be raised and lowered from below the stage. Certainly such a system was in use when Rees compiled his Cyclopaedia, for that author has provided a carefully detailed drawing of this mechanism, presented in the present study as Figure 67. Rees' drawing does not show a footlight trap designed to be operated from below the stage, however, but rather presents a slight modification whereby the mechanism might be operated from the prompter's desk on the stage level.

95 Worked from below the stage, the footlight trap would be rigged in a manner similar to those traps discussed earlier in this chapter. In Figure 58, the standard trap mechanism is given as letters (A, A), (0, 0), (M, M), and (N), in which (A, A) represents the aperture in the stage floor through which the footlights rise, (M, M) represents the footlight trap platform, (N) represents the drum or winch which supplies power to the trap, and (0, 0) represents the pulleys through which lines from the winch and counterweight run to the trap.

To this standard mechanism has been added a continuous rope (P) which passes from the prompter's desk, over the pulleys (P, P), and around a small drive pulley on the drum (H). This continuous line is activated by the small winch at the prompter's desk (Q), causing the trap to ascend and descend. Without stirring from his chair, the prompter or his assistant could accomplish "lamps up" or "lamps down" through remotely controlled operation of the footlight trap mechanism.
Figure 67. Front Elevation of a Footlight Trap Mechanism, Controlled from the Prompter's Desk. Rees' Cyclopedia, "Dramatic Machinery," Plate X, Figure 4, Ca. 1861, Library of Congress, OSUC Film No. 73.
England during the Georgian period. Although occasional experiments were conducted in an attempt to light the stage from the box-fronts, wing-ladder lights were the primary means of illuminating the scene, while after about 1765, the forestage was illuminated by footlights or floats, which replaced the circular candelabra found over the forestage in the years before 1765.

Stage Lighting: American Practice.--It is with difficulty that we piece together the information from the Chestnut Street Theatre materials which deals with stage lighting, because so little material exists. There are countless references in the Chestnut Street prompt books which note "Lamps up" and "Lamps down," but only a few references are to be found which detail the actual lighting practices of the theatre.

In a journal entry for Thursday, November 27, 1817, William Warren, writing in Baltimore, reported:

Making preparation for our departure - settling with creditors again - improvements this summer have been: the putting in of the wing ladders which cost $.[sic] painting the dome and all the interior of the House. (The italics are mine).

The following year, to Henry, who was apparently managing the company in its Washington summer engagement, William wrote:

I am getting this theatre in as good order as my weak means allows and if nothing can be attempted in Maryland [because of reports of fever] we shall make an effort here as soon as it is practicable or there is the remotest chance of getting the charges. The
place is in a heinous state. The benches in the boxes
ragged and broken. Most of them quite useless.
Wheel of the wing ladders worn out, &c., &c. 96
(The italics are mine).

One other lighting reference occurs in material related to the
Chestnut Street Theatre, but it refers to practice in the second
theatre. Durang reports that during the summer season of 1824, "Mrs.
Wood was very much bruised by a range of wing lights falling on her
while on the stage." 97 While this report is somewhat beyond the
chronological limits of the present study, it does serve to establish
the continuing nature of the practice of lighting the stages of the
Chestnut Street Theatre company with wing lights on wing ladders.

We are confronted with the incontestable fact that wing
ladders were employed in the Chestnut Street Theatre in conjunction
with stage lighting, that these wing ladders were equipped with wheels,
and that the wing ladders, at least of the period immediately
following the building of the second theatre on Chestnut Street, were
so precariously fixed to the stage floor, if they were fixed at all,
that they could fall and burn a passing actress. But we are provided
with no information concerning the appearance of these fixtures.
Moreover, we are not told exactly where these wing ladders were placed

96 Warren Letters, Philadelphia, August 12, probably for the
year 1818.

97 Durang, Vol. II, Series 2, Chap. 21, p. 211.
in relation to the stage. Happily an article in the New York *Mirror* for October 6, 1827, somewhat clarifies the confusion concerning this last point.

Written on the occasion of the opening of the Lafayette Theatre in New York, the article in the *Mirror* details some of the innovations found in that theatre:

... The machinery is managed above the scenes, and the stage lights are also placed above. This is the greatest improvement of the whole. The light is more natural, and imparts an unqualified brilliancy to the productions of the artist. It also strips the stage from the lamp ladders which prevented the wings from being opened beyond a certain width... 93

We learn, then, that wing ladders (or lamp ladders as the author of the *Mirror* article called them), were located on the stage floor in such a manner to prevent "the wings from being opened beyond a certain width."

The material from Warren’s *Journal* and letters provides us with a reasonably good picture of lighting practice in the Chestnut Street Theatre. From Lewis’ view of the auditorium and stage of the theatre (Fig. 21) drawn in 1794, we may establish the existence of footlights in the theatre. At the down-stage edge of the forestage may be seen an oblong hole, clearly the space occupied by a footlight trough. As drawn, the footlights are evidently in the lowered

93 Quoted from Hewitt, pp. 103-105.
position, for they do not show in the drawing. How these footlights
were operated is not known.

Stage Lighting: Conclusions. --From the evidence available to
us, we may conclude that stage lighting in the English and American
theatres during the period 1794-1820 was similar in most details. The
scenes of both the English and American stage were illuminated by
lamps, placed up-stage of the wings and mounted on wing ladders (lamp
ladders). American evidence suggests that unlike English practice,
wing ladders on the stages of the Chestnut Street company were mobile,
mounted on wheels. Precisely how these wheels were attached to the
wing ladders is not known. Possibly, they operated in a manner
similar to those employed by Jacopo Fabris, but this is merely
conjecture, suggested by the use of wheels on Fabris' wing carriages.

As on the English stage of the period, American theatres
appear to have employed footlights to light the forestage. Whether
these footlights were rigged in the manner illustrated by Rees (Fig.
58) is problematical. If we follow the line of reasoning posited

Fabris' system employed wing frames similar to those used in
the French system of wing changing. However, unlike the French system,
in which the carriages (chariot) ran on tracks beneath the stage floor,
Fabris' carriages rode on wheels which ran in grooves on the stage
floor. A description of Fabris' device is given in Southern
(Changeable Scenery) and a drawing, taken from Fabris' Instruction in
der Theatralischen Architecutur und Mechanique (manuscript), edited and
published by Dr. Thorben Krogh [Copenhagen: 1933]), is given as
Southern's Plate 34.
regarding the operation of borders in the Chestnut Street Theatre, that the managers of the theatre would employ any means available to curtail expenses, then we must conclude that they did make use of a rigging which permitted the stage manager to operate the footlights. This conjecture is made appealing by the absence of specific warning notations in the prompt books to "warn floats" or "warn footlights down."

General Conclusions Concerning Staging Practices
At The Chestnut Street Theatre

We have examined the stage and stage machinery of the Chestnut Street Theatre, an examination which has considered the understage and overstage machinery, the wings, flats and grooves, backstage, and traps and stage lighting equipment of the theatre. Each of these scenic elements and adjuncts has been compared to comparable elements, and American practice in employing these elements has been subjected to a comparison with corresponding English practice.

From our examination it must be concluded that American practice, with few exceptions, was derived from the English scenic tradition. That certain uniquely American modifications of English machines and practices were developed has been demonstrated, but these must be regarded as modifications, rather than as the introduction of new methods and ideas.

The single exception to this statement is to be seen in the
flown backdrop, a device employed in at least two American theatres of the period, the Richmond, Virginia, and the Chestnut Street theatres. The flown backdrop appears to have been an adaptation of the French forme, and was probably introduced to the American stage by one of the many French theatre practitioners working in the United States. Quite possibly it was introduced by Alexander Placide.

The significance of the information and conclusions developed in this chapter is twofold. It has generally been held that American practice was directly imported from England. The present study clearly defines and delineates the precise nature of American scenes and machines, as seen at the Chestnut Street Theatre during the period 1794-1820 and as seen at other American theatres of the period. Moreover, this examination of staging practice demonstrates the complete theatrical dependence upon England which existed in America until well into the second quarter of the nineteenth century. Theatrical activity in the colonies had flourished for nearly fifty years prior to the opening of Wignell and Reinagle's Chestnut Street house, but during this period, there appears to have been a complete absence of the development of an American tradition in staging techniques and in methods of scene shifting, of rigging, and of setting the stage.

We have examined the Chestnut Street Theatre and have found that the roots of its architecture, the arrangement of its interior,
and the equipage upon its stage both reflect and borrow from the English theatrical tradition. In the concluding chapters of this study, we shall examine production and production practices on the stage of the Chestnut Street Theatre in an attempt to ascertain the extent of English influence in this sphere of theatrical activity.
ENGLISH INFLUENCES ON AMERICAN STAGING PRACTICE:

A CASE STUDY OF THE CHESTNUT STREET THEATRE,

PHILADELPHIA, 1794--1820

VOLUME II

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

John Rutherford Wolcott, B.F.A., M.F.A.

* * * * * * *

The Ohio State University
1967

Approved by

[Signature]
Adviser
Department of Speech
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CHAPTER V

SOME CONSIDERATIONS OF PRODUCTION
AT THE CHESTNUT STREET THEATRE

Having explored the various aspects of the Chestnut Street Theatre building, its architecture, internal arrangement, stage, and stage machinery, it is fitting to conclude the present investigation into the New Theatre with a consideration of the scenic "look" of stage productions. This "look" is referred to throughout the balance of this chapter as the "stage picture," which is intended to denote only those visual aspects of production created by the scene painters of the theatre, and not to connote, as it might if employed in a broader sense, the visual impression created by the interplay of actors, scenery, lighting, and costumes.

The history and description of the stage picture at the New Theatre is the history of the men who created the stage settings along with a description of their various works. To this examination the following two chapters are devoted.
Painters at the Theatre

The English Scene Painters in Philadelphia. --The departure of Thomas Wignell from Hallau and Henry's Old American Company in 1791 and the subsequent establishment of the Chestnut Street Theatre Company, marked the beginning of a new era in the American theatre, an era characterized by opulence, both in audience accommodations and in theatrical production, and never before experienced in the United States. To attribute this entirely to Wignell perhaps would be to overstate the case: cultural consciousness was burgeoning rapidly in the young republic; dancing schools, drawing schools, and schools of elocution sprang up in cities and towns alike. But it cannot be doubted that it was Wignell who introduced to the United States the refinement and professionalism of the English theatre of the period.

From England, Wignell recruited a splendid company of actors. Mrs. Oldnixon was brought out from the Haymarket and Drury Lane; James Fennell, from the Covent Garden and Edinburgh stages; and Billy Bates from Drury Lane. Darley and the Marshalls were recruited from Covent Garden, and John Pollard, called Moreton, who was American by birth, returned from England in 1793. Employed by Wignell as principal scene painter was M. Charles Milbourne,

... an excellent scene-painter, who decorated the house and furnished the necessary scenery, as far
surpassing any stage decorations heretofore seen in the country as the building surpassed former American theatres.\footnote{Dunlap, History of the American Theatre, p. 223.}

The arrival of M.C. Milbourne at the Chestnut Street Theatre in 1793 marked the beginning of a tradition, for from that date until the theatre burned in 1820, all of the principal scene painters in the New Theatre were either directly from Covent Garden theatre or were trained by Covent Garden scene painters.

English scenery had found its way to the Colonies as early as 1750, when William Hallam brought with him from England the contents of the theatre in Goodman's Fields, and there are countless other instances in which English scenes were sent out for use in the Colonies. But it was Milbourne, "the first eminent [scene] painter that . . . crossed the Atlantic,"\footnote{Bernard, p. 261.} who brought the art and tradition of English scene painting to this country. This artist began painting in Portsmouth, England, about 1782, where he designed and painted the Temple of Hymen.\footnote{Theatre Notebook, Summer, 1965, p. 136.} From October 1785 to October 1789, Milbourne was
employed as an assistant painter at the Covent Garden theatre, where he worked under de Loutherbourg and John Inigo Richards.

Milbourne's tenure as principal painter with the Chestnut Street company was brief, probably no more than a year or two, but he seems to have been active in the theatres of Philadelphia and New York until at least 1816. As late as 1802, Milbourne painted a new curtain for the Chestnut Street company, then playing a summer season at the Southwark Theatre, and it is quite possible that he worked sporadically in Philadelphia in subsequent years, although his name does not seem to appear on playbills of that city after 1795.

Milbourne's worth as a scene painter cannot be evaluated critically, there being no extant example of his scene design work. His talent as a watercolor artist is well attested to, however, and judging from contemporary newspaper accounts, he was no less talented as a scene painter than as a watercolor artist. His watercolors were

---


5 There is no record that Milbourne worked with these men, but both de Loutherbourg and Richards were employed at Covent Garden during this period, and both were working on O'Keefe's Omai when Milbourne arrived in October, 1785.


7 Groce and Wallace, p. 443.

8 Darang, I, Chap. XXXV, p. 71.
exhibited with the Society of Artists of Great Britain, in 1790,\textsuperscript{9} and according to Fielding, Milbourne "painted some views of Philadelphia," which included a "View of Arch Street Wharf with Boats Sailing on the Delaware," and a view of "Third and Market Streets, Philadelphia," both "remarkable for their excellence."\textsuperscript{10}

Milbourne's successor at the Chestnut Street Theatre may have been Inke Robbins who, according to Seihamer, "painted some of the scenery, sang in the chorus, and occasionally played small parts" in the Old American Company in the season 1792-93.\textsuperscript{11} It has not been possible to place Robbins at the Chestnut Street Theatre with certainty during the period 1795-96. The New York Historical Society describes Robbins as a "scene painter and teacher of painting," who "taught landscape, architectural, and flower painting." According to their records, "in July 1796 was announced Robbins' appointment as scene-painter at a new theatre to be opened in Petersburg (Va.). He had previously been scene-painter at the New Theatre in Philadelphia."\textsuperscript{12} No authority is cited, nor have I been able to


\textsuperscript{10}Fielding, p. 241.

\textsuperscript{11}Seihamer, III, p. 47.

\textsuperscript{12}Groce and Wallace, p. 541.
confirm this report. If it is a fact that Robbins designed scenes for Wignell during this period, it marks the only occasion in the first Chestnut Street Theatre's twenty-six year history in which scenery was designed by an artist whose training in the English tradition cannot be substantiated.¹³

In 1796, the post of scene designer and painter at the Chestnut Street Theatre was assumed by John Joseph Holland, late of Covent Garden and King's Theatre, Haymarket:

This gentleman was born in London about the year 1776. At the early age of nine, he was apprenticed to Marinelli [Marinari], the scene painter of the opera house [King's Theatre, Haymarket]; who, pleased with the boy, taught him both the theory and practice of scene-painting, made him a good water-color draftsman, and architect.¹⁴

From August 2, 1794, through February 23, 1795, Holland was employed at Covent Garden as an assistant painter, where he assisted with the preparation of scenes for the pantomime Naco and Daco, presented in December, 1794. For reasons unknown, Holland returned to King's

¹³ Virtually nothing is known of the life of Luke Robbins beyond those facts already cited. His origins are unknown, as is detail concerning his early training. The exhaustive Checklist of Scene Painters Working in Great Britain and Ireland in the 19th Century (Theatre Notebook, Autumn, 1964 through Winter 1965/66) makes no mention of Robbins as an English painter, and in view of his omission from so thorough a study it seems reasonable to conclude that he did not practice in England, although he may possibly have received his training in that country.

Theatre, Haymarket, where Wignell, on a recruiting trip, met Holland and hired him for the New Theatre, Philadelphia.

Holland arrived in New York in the autumn of 1796 and worked for Wignell until 1807, at which time he was engaged by Thomas Cooper to rebuild the interior of the Park Theatre, in New York. He continued to paint for the Park until 1813, was briefly active in the Commonwealth Company, and continued to work sporadically until his death in 1819-20.\textsuperscript{15} Dunlap described Holland as "a man of taste in arts; and his landscapes in water-colour had great truth and force. He never attempted oil. . . . When he entered the workshop, . . . streets, chambers, temples or forests grew under his hand as by magic."\textsuperscript{16}

\textbf{Diffusion of the English Tradition.} --Judging from contemporary newspaper accounts of the scenery at the theatres of the Chestnut Street company, Holland would have served well had he only served as principal scene painter. But this artist accomplished more, for it was under his tutelage that Hugh Reinagle, Luke Robbins, a Mr. Stewart or Stuart, and Henry Warren emerged as first-rate American scene painters.

\textsuperscript{15}Various dates are recorded for Holland’s death. Probably the least suspect is that supplied by William Warren, who recorded in his Journal for Saturday, December 23, 1820: "Holland, our former scene painter, died in New York this week."

\textsuperscript{16}Dunlap, \textit{Art of Design History}, II, pp. 64-65.
of Holland's several pupils, it was perhaps Hugh Reinagle, son of the co-founder of the Chestnut Street Theatre, characterized by William Warren as something of a rake, who enjoyed the greatest acclaim. Reinagle joined the Chestnut Street company in 1803 and served as a scene painter with the company on a regular basis until 1806. From 1807 until 1813, Reinagle was employed at the Park Theatre, New York, possibly at the request of Holland, who was principal painter for that theatre during the corresponding period. Reinagle's primary interest seems to have been in the establishment of schools of painting, although he never completely abandoned the theatre.

It appears that Holland never returned to the Chestnut Street Theatre after his departure in 1806, but Reinagle, like many of the scene painters of the period, often visited the theatre and assisted with the scenery each time. The practice of visiting from theatre to theatre seems to have been widespread and was probably a product of the economic condition of American theatres during the early years of

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18 James, Cradle of Culture, p. 61. From newspaper accounts.

19 Groce and Wallace, p. 530 and p. 322.

20 Groce and Wallace, p. 530. Between 1815 and 1817, Reinagle established an "academy" in Albany, and in 1818 he established a similar facility in Philadelphia.
the republic. Most plays were produced with stock scenes, as we have already seen, and it was not at all uncommon for a theatre to prepare only three or four new settings each year. The season of 1807-08 at the Chestnut Street Theatre serves to illustrate this point. During the summer, the managers produced "17 pieces, among them To Marry or Not to Marry, new to Philadelphians. In the fall, among their 130 pieces 39 comedies, 21 farces, 16 tragedies, 11 comic operas, with 11 of the total new to Philadelphia and four of them never as yet produced in America." Of all of these offerings, only The Fortress, with scenes by Robbins, assisted by Stuart, boasted new scenery. Warren and Wood like many of the managers of theatres far smaller than the Chestnut Street, could not afford such an extravagance as full-time designers. To provide year-round employment, Warren and Wood permitted their designers to assume responsibility for maintaining the appearance of the auditoriums of their several theatres.

If Hugh Reinagle became the most widely known of Holland's

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21 James, Cradle of Culture, p. 100.

22 The Warren Letters abound in instructions from William to Henry Warren to "push that cursed lamp maker about the lens for the chandeliers [sic]," to "get the front [of the house] finished as soon as you can," and to push forward with repainting, in order that the "paint [would be] quite dry so that the auditors may not carry it away on their garments." Indeed, so extensive was the Chestnut Street Theatre company's activity during this period that at times a scene painter was employed in each of the company's theatres.
pupils, it was nevertheless Luke Robbins who perpetuated the English tradition at the Chestnut Street Theatre when Holland departed for New York. Although accomplished enough as a scene painter to have been given employment in 1796 in Petersburg, Robbins must have learned much from such accomplished painters as Holland and Milbourne. It cannot be demonstrated that Robbins' style and competence underwent a change during the period in which he painted with Holland and Milbourne, but it is reasonable to suppose such a change, for in virtually every instance where Robbins worked with the English painters, he is listed as their assistant—the implication being that Robbins, the assistant, executed the designs of the master painters to their satisfaction.

Moreover, the citizens of Philadelphia grew accustomed to the fine work of Holland and Milbourne, and it may be surmised that when Holland departed from the city, the Holland standard of excellence was maintained by Robbins at the Chestnut Street Theatre. The management of the theatre was noted for the superior quality of its productions, and it is unreasonable to suppose that Robbins would have been employed as principal painter had his work been much inferior to that of his predecessors.

Holland and Milbourne served as the touchstone of scene painting in the first Chestnut Street Theatre company, long after their departure from the Philadelphia establishment. Their regular returns to the New Theatre merely reinforced the tradition which they
began. Milbourne, who departed the theatre in 1796, returned in the seasons of 1799, 1802, 1803, 1805, 1806, and 1807. Of Holland's return to the theatre, I have been able to find nothing. Luke Robbins, who first painted at the theatre in 1796, returned to paint in 1799, 1803, and 1805, at which time he assumed the post of principal painter. Mr. Stuart, possibly the son of Gilbert Stuart, the famous American painter, painted at the Chestnut Street house in 1799 and 1800 and returned to paint during the seasons of 1808 and 1809. Last in the line of painters who visited the theatre during this period was "T. West, the scene painter and actor," who first appeared at the New Theatre in 1809. He departed in 1811, and the extent of his contribution to the scene department is not known.

Henry Warren, Who Extends the History.--Each of these scene painters, Milbourne, Holland, Reinagle and Robbins, helped to shape the artistic development of Henry Warren, the only painter from the theatre whose work has survived the years since the theatre burned in 1820. Henry Warren, brother of William Warren, came to the United States and the Chestnut Street Theatre in 1796 at the age of thirteen. Born in Bath, England, in 1793, he may have come to this country with

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23Grose and Wallace, p. 541.

24West's activity at the Chestnut Street Theatre has been extremely difficult to document. It is quite possible that he, like the other painters associated with the theatre, returned occasionally following his departure in 1811.
his brother William, although the latter's Journal, which records the 1805 voyage from England in detail, makes no mention of the younger Warren. Except for describing the day-to-day details of his life in Philadelphia and Baltimore during the second and third decades of the nineteenth century, Henry's letters, preserved in the Warren Scrapbook, reveal little which might assist in an evaluation of his artistic career, and little of his life in general. The only known document recording the events in the life of Henry Warren is found in an article in the San Antonio Express for February 22, 1914, with information contributed by Alfred Warren, one of Henry's sons.  

According to Alfred Warren:

Even when a child, Henry Warren developed great talent for drawing and painting. He never took lessons in art, but studied the designs of others, first using the old woodcut illustrations in a book on mythology. He excelled in all branches of art except sculpture, which he never attempted.

Continuing, Alfred describes the work of his father, implying—probably without intending to—both the eclectic and derivative nature of Henry Warren's style:

My Father's work embraces a wide range of subjects and kinds of art. He painted in oil and water colors, made sepia, pen and ink and pencil sketches. His portraiture was perfection. He painted, besides his own portrait, that of his elder brother, William, and the latter's own son and namesake, William Warren, Jr., the Boston comedian. He portrayed his mother-in-law,  

25 San Antonio Express, San Antonio, Texas.
who was blind and her daughter his sister-in-law
... Some of his subjects are taken from the
Scriptures, notably two of them, representing St. John
The Baptist, in the Wilderness, and The Money-Changers
... [And such allegorical subjects as] The Wise Man
Who Built His House on the Rock and the Foolish Man
Who Built His House on the Sard. ... He was
particularly fond of Walter Scott and Robert Burns.
Two of his finest oil paintings represent scenes from
Scott's works. ... [one of which was] Scott's
Cottage Door, done after the style of Gainsborough.
... Two of his companion pictures are after the style
of Hogarth. ... Another is a landscape scene
representing a scene in a fog. He painted several fog
scenes all of which show beauty and originality. His
storm and shipwreck scenes are particularly striking
and effective. ... His history pictures, especially
those showing objects in Italy, Greece, Egypt, and
elsewhere, are interesting. ... The ruins ... depicted in these paintings all show art of high order
... expressed in rare grace, rich color and striking
manner.

Discounting the obvious enthusiasm of a son for his father's work, the
San Antonio Express article nevertheless provides an interesting and
comprehensive overview of Henry Warren's work.

**Henry Warren's Nontheatrical Paintings.** --One concludes, upon
examining the nontheatrical works of Henry Warren, that the self-
trained artist responded to the general trend of American painting
during the first half of the nineteenth century. Two of Warren's
paintings; published with the 1914 San Antonio Express article and
reproduced in the present study as Figures 68 and 69, reflect the
typical characteristics of turn-of-the-century paintings which Barker
Figure 68. Picnic Sketch.
Henry Warren, artist. San Antonio Express, February 22, 1914. OSUIC Film No. 1759*.
Figure 69. House Built on the Rocks and the One Built on the Sand. Henry Warren, artist. San Antonio Express, February 22, 1914. OSUC Film No. 1759*.
has referred to as "static classicism" and "theatrical romanticism." These qualities are exemplified in The Picnic Sketch (Fig. 68), in which life seems frozen at the water's edge. Yet in this frozen world, the strong thrust of the naked trees imparts an artificially romantic quality to the composition. The dynamism of these trees belies the classically bucolic nature of the stream-bound cattle and the petrified picnickers. The painting style of The Picnic Sketch appears to be midway between Stuart's The Skater (1782) and Francis Guy's Pennington Mills, View Downstream (1804).

In The Wise Man who Built His House on the Rock and the Foolish Man who Built His House on the Sand (Fig. 69), Warren has presented an allegorical subject in a rigidly classical manner: mass balances mass, line and shadow compliment corresponding line and shadow. While this reproduction of the painting is extremely poor, a profusion of classical statuary and urns may be seen that abound in the work. An interesting similarity of tone, if not of subject, is to be found in Thomas Cole's Destruction of the Empire: like Warren,


27Gilbert Stuart. The painting is owned by the National Gallery of Art, Washington, D.C., and is reproduced by Alexander Eliot, Three Hundred Years of American Painting (New York: Time Incorporated, 1957), facing p. 34.

28Reproduced in Barker, Plate 36. Owned by the Peabody Institute, Baltimore, Maryland.
Cole makes use of a strongly thrust-out statuary arm to direct the eye of the viewer across the scene, returning the vision through the employment of a surging wall of water. Both artists deal with an allegorical subject, and both approach their subject from a formal viewpoint, adhering rigidly to the classical rules of the period.

While no information is at present available concerning the chronology of Warren's fine arts paintings, it seems reasonable to place the works illustrated in Figures 68 and 69 at one end of a developmental line and to place Figure 70 at the other. The former are distinctly classical; the latter romantic. Figure 70, The Lady of the Lake, approaches in spirit the works of the Hudson River School painters. The landscape presented in this painting is "great in proportion," declaring the "glory of God and not the works of man." The figures, even more than the figures in Durand's famous Kindred Spirits, are dwarfed by the majesty of the mountains and the open sky and serve to focus the eye of the viewer on these wonders of nature, rather than on themselves.


31 Eliot, p. 72.
Figure 70. Lady of The Lake. Henry Warren, artist. San Antonio Express, February 22, 1914. OSUTC Film No. 1759*.
There is insufficient evidence to permit a comprehensive evaluation of Henry Warren's nontheatrical work. However, from the works which are available, Warren appears to have been strongly influenced by developments in American painting during his lifetime. His style is eclectic, his technique—from what little we can tell of it—appears excellent. Alfred Warren's somewhat florid evaluation of his father's work seems to describe adequately the essence of his painting style.

**Henry Warren, Scene Painter.**—Henry Warren became the principal scene painter of the Chestnut Street Theatre, holding that post from about 1815 until the dissolution of the Warren and Wood partnership in 1826. He remained at the second theatre in Chestnut Street until at least 1830 or 1831. During the early years of his stay in Philadelphia, Warren painted with Holland, Robbins, Stuart, and Hugh Reinagle. He is first mentioned in playbills and advertisements in 1809, when he assisted in the painting of the scenes for *The Forty Thieves* under the supervision of Luke Robbins.

**The Warren Scene Designs.**—Of the scene painting of Henry Warren, little is known. Only four examples of his work and a number of partial sketches and studies for set details, costumes, furniture, etc., have been preserved in the Warren Scrapbook. The four backdrop sketches, for they are hardly more than sketches, are presented in the present study as Figures 71, 72, 73, and 74. There is no
Figure 7L. Setting for a Chinese Garden. Henry Warren, artist. Warren Scrapbook. OSUTC Film No. 1759*.  

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Figure 70. Setting for a Chinese Garden. Henry Warren, artist. Warren Scrapbook, OSUC Film No. 1759.
Figure 73. Setting for a Chinese Garden. Henry Warren, artist. Warren Scrapbook. OSUTC Film No. 1759#.
identification on these drawings other than the notation on Figure 71 which reads "Chinese Gentleman," the inscription on Figure 73 which reads "Chinese Garden," and the notation on Figure 74 which identifies that sketch as a "Malaye Village." Figure 72, while unidentified, is clearly a sketch of a Chinese garden with two figures in Chinese dress.

Identification of the play for which the "Malaye Village" setting is intended has not been possible. Better success has been achieved with the three Chinese studies, which have been identified tentatively as sketches for the opening scene of Andrew Cherry's The Travellers, first performed at the Chestnut Street Theatre on April 20th, 1807.

Cherry described the setting for Act I, sc. 1 of The Travellers:

A beautiful Garden in the Chinese style, -- with many bridges -- intersecting canals, &c. -- The Sun rising in the distance. -- The curtain is drawn up slowly to a symphony resembling the warbling of birds. -- CELINDA, followed by DIONYSO, is seen passing from bridge to bridge. -- When she reaches the front of the stage, the music ceases.32

Similarities in the three Warren drawings (Figs. 71, 72, and 73) suggest the likelihood that these are three versions of the same

32 Andrew Cherry, The Travellers (London: W. Oxberry, 1823). The late date of publication notwithstanding, the stage directions, according to Oxberry, reflect the 1806 Drury Lane production.
scene design. In each of the studies, the view to the rear is
terminated by a pierced wall; in Figures 71 and 72 the wall is
pierced by a round opening, while in Figure 74 the opening is in the
form of a conventional garden door. In all three of the sketches a
drum-like seat is drawn: Figures 71 and 72 clearly illustrate the
identical seat, while the seat illustrated in Figure 74 differs only
in lack of detail. The drum in Figure 71 has been labeled "seat" by
the artist. Moreover, the style of foliage in the three drawings is
similar, and the arrangement of steps and platforms in Figure 71 and
72 is remarkably similar.

Derivative Nature of the Warren Sketches.—The four Warren
scene design sketches must be, by virtue of their content, of a
derivative nature. All four of the sketches (Figs. 71 through 74)
contain subjects and motifs which could not have been known first-hand
by Henry Warren. Moreover, the details and motifs contained in these
sketches are authentic: when compared with actual sketches of Chinese
and South Sea subjects, the Warren sketches withstand the comparison.
It must be concluded that the detail, both architectural and floral,
is derived from some authentic source. Precedence for such
consultation of source material is well established. The 1785
production of Omai, for example, produced at Covent Garden, with
scenery by de Loutherbourg and John Inigo Richards, was a "Pantomime
based on Captain Cook's voyages, scenery [based] on drawings and
prints by John Webber and William Hodges who had accompanied Cook.\textsuperscript{33}

Nor was this employment of materials isolated to this production: a French production of *Paul et Virginie*\textsuperscript{34} made liberal use of South Sea iconography, and English and American titles such as *Law of Java* and *Mahomet*, and *Pizarro and Timour the Tarter* clearly indicate the necessity for consulting source materials for scene designs. Travel books were extremely popular during this period, and it is inconceivable that inaccuracy in authenticating detail could long go unnoticed by audiences.\textsuperscript{35}

There is nothing among the Warren materials or among the Chestnut Street Theatre materials to suggest the sources from which Henry Warren drew inspiration for his more exotic design ideas. In the light of contemporary practice and with the authenticity of the sketches presented in Figures 71 through 74, it must be concluded that Warren, like his colleagues, relied heavily on source materials for the productions of settings whose locales were unfamiliar to him.

\textsuperscript{33}Theatre Notebook, Spring 1965, p. 110.

\textsuperscript{34}Paris, 1806.

\textsuperscript{35}John Hawkesworth, *Cook's Voyages*, 3 vols. (London: John Hawkesworth, 1773). This work ran to two editions during its first year of publication. W. Harrisden's *Memoirs of a Malayan Family, Written by Themselves*, although not printed until 1830, was translated upon its receipt in London in 1792, and was circulated privately. Countless other examples of this widespread interest can be cited.
However, information exists of a more specific nature concerning the influences on Warren's more commonplace designs.

Source Materials in the Warren Scrapbook.--Evidence from the Scrapbook suggest six sources employed by Henry Warren for his more commonplace designs:

1. Descriptions and sketches of London theatre productions, supplied Philadelphia scene designers by London designers and by travellers returning from visits to London;

2. Designer’s models of London productions, provided by London designers;

3. Juvenile Drama scenery plates and costume prints;

4. Frontispiece plates from published playscripts, primarily employed as sources for costume designs;

5. Illustrations from theatrical publications, primarily employed as sources for costume designs;

6. Illustrations from nontheatrical publications, primarily employed for details of landscape, etc.

Let us defer for a moment a discussion of items one, two, and three, for these will be taken up in detail in a subsequent discussion of the Chestnut Street Theatre production of Aladdin. It need only be said for the moment that the Juvenile Drama plates of London productions, sketches of London scenery, and models of scene and machine effects were apparently widely employed in the preparation of scenes at the New Theatre in Philadelphia and in all likelihood were utilized by virtually all of the designers engaged to paint at that theatre.
Several pages of the Warren Scrapbook are given over to a collection of frontispiece plates representing major works of the eighteenth and early nineteenth centuries. Comparison of these plates with Warren's costume design studies suggests that the latter were influenced by details found in the frontispiece plates.

In addition to these plates, which provide virtually no scene design material, the Scrapbook contains numerous full-page plates illustrating German productions of the works of Schiller, Kotzebue, and Goethe, all playwrights whose works were popular in Philadelphia during the period under consideration. These plates appear to be part of a series, and all bear a strong similarity in style. 36 Comparison of detail in these plates, especially in details of armor construction, with costume sketches executed by Warren suggest the influence of the German prints on Warren's designs.

Neither the frontispiece plates nor the German works indicate much scenery, however, and it must be concluded that other sources served Henry Warren in this respect. The Scrapbook contains a strong indication of what some of these sources might have been, but it has proved impossible to link the source materials in the Scrapbook with specific Chestnut Street production. Nevertheless, the abundance of

36At present the source for these plates is not known.
the source material included in the Scrapbook points to the likelihood of its employment by Henry Warren.

Ten lithographs have been mounted in the Scrapbook. Printed in London in 1826 and 1827, six of the ten were executed by Samuel Prout and bear his monogram. Of the remaining four, two are signed "J.D.H.," and from their style and the manner in which they were executed appear to have been drawn by James D. Harding, Samuel Prout's pupil. The remaining lithographs are not signed, but appear to have been executed by Harding also, reflecting both his style of drawing and his lithograph technique.

The Prout studies in the Warren Scrapbook are of cottages and ruins and reflect Prout's preoccupation with subject matter of this genre. Prout excelled in works of this type, and his English studies from the North, made early in his artistic career, focus sharply on cottage and ruin compositions. I have found no record of a Prout publication or collection for either the years 1826 or 1827. J. Dickinson, of 114 New Bond Street, who published the plates appearing in the Warren collection, may well have republished Prout lithographs of an earlier date, however.37

37Ernest G. Halton, Sketches by Samuel Prout (London: The Studio Ltd., 1915), p. 20: "Lithography was introduced into this country [England] at the beginning of the nineteenth century, and Prout was among the first English artists to exploit Senefelder's new process [discovered in 1798]." Prout's "earliest dated lithograph is the drawing which appeared in Senefelder's Complete Course of
Figure 75 presents an example of Prout’s early work and typifies the Prout materials collected by Warren. Although unidentified, this drawing probably represents one of the many works executed by Prout on his several trips into Northern England. Figure 76 presents a work of James D. Harding with a subject somewhat similar to that shown in Figure 75. Comparison of the two lithographs here presented reveals immediately the characteristic differences in the works of the two artists. Harding focuses a great deal of attention on foliage, and where Prout tends to generalize foliage with a few strokes of the grease-stick, Harding labors long over each tree, branch, and leaf. Despite the attention to detail, Harding’s work appears "gray": that is, detail is often heavily shadowed, and the range of value between highlight and shadow is often quite narrow. Prout, on the other hand, retains detail in even the most deeply shadowed areas and regularly employs great disparity of value between highlighted and shadowed areas. This characteristic of Prout’s work is seen quite clearly in the treatment of the slightly opened door at the center of Figure 75.

Precisely how these works were employed by Warren and what

Lithography (1819) as A Drawing on Paper transferred on Stone. ... Prout’s "finest work upon the stone was not produced until some years later when he had mastered the technical peculiarities of the medium, and discovered that as a means of rendering the most distinctive feature of his draughtsmanship, the broken touch, it was invaluable."
Figure 76. Untitled Lithograph. James D. Harding, artist.
Warren Scrapbook. OSUTC Film No. 1759.
influence they brought to bear on his style can only be inferred.
Examination of sketches and drawings in the Warren Scrapbook—Figure 68, for example—suggests an inclination toward the style of Prout, but the evidence here is extremely slight.

Two possible courses of conjecture can be followed, neither of which is conclusive. The Prout and Harding lithographs may represent some of the "designs of others" which Warren is said to have studied. Both of these lithographers wrote several instructional books on painting, drawing, and lithography, and it is quite possible that Warren studied from these. On the other hand, these drawings may merely have served the scene painter as models for set pieces and for backscenes on the Chestnut Street stage. The employment of these drawings in the latter manner presents the more likely avenue of choice and is certainly not without precedence.

From the evidence at hand, it is extremely difficult to establish a conclusive line of influence from Milbourne and Holland to Henry Warren. But such a line must surely have existed, for it was under the tutelage of Holland that Warren learned to paint scenery and to design for the stage. No problem exists in establishing the influence of English artists on Warren's work; however, for the preponderance of English source materials in the Warren Scrapbook, coupled with a knowledge of the great number of English plays mounted in English settings which appeared on the stage of the New Theatre,
argues strongly for the inherently English nature of Warren's designs. That Warren's style was modified in time will be established below, but even these modifications were, in the final analysis, derived from the English painting and design tradition.

**Summary of the Scene Design Tradition at the Chestnut Street Theatre.**--In summarizing the scenic tradition at the New Theatre in Philadelphia, from 1794 through 1820, it may be concluded that scene painting closely adhered to the principles and practices laid down by the English scene painters working in America during the period. This tradition at first was not derivative, but was entirely English, to the extent that English scenery and English scene painters were imported directly from London.

The art of scene painting, introduced to the Chestnut Street Theatre by M.C. Milbourne and developed to a high degree by his successor, John Joseph Holland, was transmitted by exemplification and instruction to the "American" painters of the New Theatre: Hugh Reinagle, Stuart, Robbins, and Henry Warren. Warren was to become the theatre's principal scene painter from about 1815 until the destruction of the first theatre by fire in 1820.

Henry Warren, who "never took lessons in art, but studied the designs of others" had, as might be expected, an eclectic and derivative style in the fields of both fine arts and scene painting. Since he learned to paint under Robbins, Reinagle, and Holland, it
must be concluded that these painters profoundly influenced young Warren. The precise extent of this influence cannot be determined. However, sufficient materials are to be found in the Scrapbook to permit cautious conclusions to be formed concerning other influences on Warren's style. These materials indicate that English and Continental painters were represented among Warren's source materials, that Warren employed a style based in classical tenets, cautiously colored with romantic overtones, and that Warren relied on drawings, lithographs, engravings, and sketches by contemporary artists for details in scene design of such items as scenery, flora, and buildings.

The Stage Picture at the Chestnut Street Theatre

Having developed a chronology of the major scenic artists at the first Chestnut Street Theatre, and having examined, in so far as possible, the backgrounds of these artists, attention is given to the type of stage picture which these designers prepared for the Chestnut Street stage. Unfortunately, none of the scene designs of Milbourne, Holland, Robbins, or Reineagle are known to have survived the years. Only four examples of Henry Warren's work remain, and these appear to have been executed in an atypical style and are of a highly specialized, hence, atypical subject. It is doubtful, therefore, that these four designs (Figs. 71, 72, 73, and 74) present a typical
example of scenery on the stage of the Chestnut Street Theatre.

Consequently, as in other areas of inquiry throughout this study, we must consider the stage picture at the Chestnut Street Theatre through analogies.

Relationship of Scenic Arts to Fine Arts: A Hypothesis.--A conjecture toward the nature of the stage picture at the Chestnut Street Theatre is predicated upon the hypothesis that the style in scene design of any given artist closely follows that artist's style in nontheatrical painting. The relationship of nontheatrical painting to scene design painting has long been recognized. Kernodle\textsuperscript{38} suggested the progression from the former to the latter, while Jackson\textsuperscript{39} developed the specific thesis that the stage picture of the English Restoration period closely resembled the landscape painting of the same period. Among the designers of the latter part of the eighteenth and early part of the nineteenth centuries, the relationship of nontheatrical painting to scene design was no less pronounced than among designers' works from earlier periods.

P.J. de Loutherbourg, Whose Work Supports This Thesis.--A comparison of specimens from de Loutherbourg's \textit{Romantic and}


Picturesque Scenery of England and Wales, with specimens of his scene paintings reveals an extremely close relationship between the two media in style and treatment of subject matter. Figure 77, taken from the Romantic and Picturesque Scenery, and Figure 78, believed to be a stage design for Wonders of Derbyshire representing Peak's Hole, testify to this relationship. Figure 77 shows a group of figures framed by the great outcropping of rock in the upper foreground and set in relief by the dark rocks in the center-ground of the drawing and by the brilliant sky in the background. The foreground figures catch the eye of the viewer; the diagonal of their composition leads the viewer's eye to the dark rocks in the right foreground. From these rocks, the strong diagonal thrust of the outcropping leads the eye to the tiny figures in the center rear of the painting, and then to the dark mass of rock at the left middle-ground, from whence the eye is led back to the foreground figures. The viewer is both interested in the foreground figures and conscious of the awesomeness of their surroundings. The effect of the whole is one of strength and massiveness.

In Figure 78, the scene design for the Wonders of Derbyshire, we find a similar composition, although in this case the foreground

Figure 76. Wonders of Derbyshire, Peak's Hole.

P.J. de Loutherbourg, artist. Victoria and Albert Museum.
figures, which are not shown in the scene design, would actually be
the actors who played before the scene. Here again we see
de Loutherbourg's typical employment of the strong diagonal to lead
the viewer's eye across the scene; here again, the subject matter and
the treatment given it by the painter contributes to the viewer's
enjoyment of the overwhelming massiveness of the scene.

In both his nontheatrical works and in his scene designs,
de Loutherbourg displays a similarity in technique. Form, in both
media, is stated in bold, strong masses, but detail is more often
implied than stated. Thus it is that in Figure 77, the rocks and
outcroppings are laid in with bold strokes, with virtually nothing
other than context and profile to identify them. This same treatment
is employed in the scene from the Wonders of Derbyshire (Fig. 78),
where in only the right foreground of the painting, an area
highlighted by strong sidelight from the sky, is the detail of the
rocky outcropping actually revealed.

Examination of architectural subjects executed by
de Loutherbourg further illustrates the similarity of technique in
nontheatrical and scene design rendering. Comparison of the
watercolor sketch of Conway Castle, from Romantic and Picturesque
Scenery, with de Loutherbourg's sketch for a "Prison Scene,"\(^1\)

\(^1\) In the collection of the Victoria and Albert Museum.
indicates the same similarities found in Figures 77 and 78. In the sketch of Conway Castle, great patches of the castle facade reveal little or no detail whatever: shadow on the face of the castle tower is laid in solidly, and the rocks in the left foreground reveal virtually no detail. In the "Prison Scene," only the area highlighted by the suspended lantern reveals detail. The massive solidity of the dungeon cell is suggested by the inky blackness of the vaulted ceiling. Where detail is presented it tends to be implied through the employment of light and shadow, rather than being drawn into the work line by line. Comparison of these and numerous other examples of de Louthourbour's work leads me to the conclusion that this artist's works in nontheatrical and scene design genres bear an inescapable similarity of style and technique.

De Louthourbour's technique is loose; one senses a freedom, a spontaneity, in the works of this artist. This is not to suggest that de Lotherbourg drew without care, but rather that his paintings in both media communicate and project a quality of unrestraint. The viewer is conscious that a bold brush lay in the hands of the artist. One senses this same quality in the works of Thomas Greenwood, of John Henderson Grieve, and, to a somewhat lesser degree, of John Inigo Richards.

John Inigo Richards.—As we have seen in preceding chapters, Richards supplied several drops for the Chestnut Street Theatre, and
we may state with certainty that his brush contributed to the stage picture of that theatre: like the works of de Loutherbourg in the two media, Richards' nontheatrical works closely resemble the one specimen of this artist's scene design which I have been able to examine. In the works of Richards, unlike those of de Loutherbourg, we find a considerably greater focus on delineated detail. Richards' setting for the first scene of *Maid of the Mill*,\(^2\) (Fig. 79), reveals a technique quite unlike that of de Loutherbourg: considerable detail is drawn in the thatching areas of each of the three buildings represented and boards in the building at center are rendered separately, as are those in the building at the left foreground. Shadow does not obliterate detail, as it tends to in de Loutherbourg's works, and in general the tone of Richards' design--i.e., the overall gray-scale value of the drawing--is much higher than the tone of de Loutherbourg's works.

It must be noted that Figure 79 is an engraving, and the possibility cannot be overlooked that it is to the engraver, rather than to Richards, that the design owes its crispness and attention to detail. However, examination of Figure 80, Richards' 1776 watercolor drawing of *St. Mary Cray, Kent*, quickly overrules such an objection, for in this watercolor drawing is to be seen the same kind of

\(^2\)Covent Garden, 1765. The original engraving by William Wollett is owned by the British Museum.
Figure 79. First Scene of *The Maid of the Mill*.
John Inigo Richards, artist. The British Museum.
attention to detail which is found in Figure 79. Boards are
individually rendered; framing on buildings, stone work, even the
millions on windows, are meticulously laid in. Tonal value of the
watercolor is high: shadowed areas reveal the surface and texture
below, and in only a few areas of the painting do values approach the
extremes found in de Loutherbourg's works of a similar genre.

Richards' nontheatrical works, like those of de Loutherbourg,
tend to reflect romantic or rustic subjects. Richards' works abound
in ruins, old buildings, and cottages set in pastoral scenes. To the
modern viewer accustomed to a less gentle view of life, they appear
quaint by reflecting the strong viewpoint of the painter, a viewpoint
which searches out and records the picturesque. The similarity
between the nontheatrical and scene design works of Richards, like the
similarity found in de Loutherbourg's works, is undeniable.

The Validity of the Hypothesis When Applied to Other Styles.
--We have demonstrated the similarity in style of the nontheatrical
and scene design works of two painters of the "romantic" school. In
order to give further support to the thesis that the nontheatrical
works of an artist tend to approximate closely in style and technique
his scene designs, we need only examine the works of a painter like
William Capon. Using the term "school" in its broadest sense, it may
be said that while de Loutherbourg and Richards represent the
"romantic school," Capon, like John DeVoto, Rooker and similar
painters of the eighteenth century, represents the "architectural school" of painting and scene design.

William Capon was a student of Michael Novosielski, the Italian-born architect and scene painter who painted at the King's Theatre (Haymarket) and at Drury Lane Theatre from about 1777 to 1795. Primarily noted for his opera and ballet scenes executed for the works of Noverre, Novosielski reconstructed Vanbrugh's King's Theatre, and was employed in rebuilding the King's Theatre after the fire, in 1798. Capon worked and studied with the Italian architect-designer for about five years. Considering his architecturally oriented background, it is not surprising to find that Capon's works in both nontheatrical and scene painting are primarily architectural in technique and in subject matter. For example:

In his long collaboration with J.P. Kemble, whose antiquarian interests chimed with his own, Capon brought to the stage a series of designs based on ancient buildings, mostly Norman and Gothic. He copied old buildings with meticulous care for his scenery.\(^{43}\)

Figure 81, Capon's View Looking East shewing ... the North side of the Abby Church of Westminster\(^{44}\) indicates the vast difference in style between the "romantic school" and the

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Figure 81. View of Westminster, looking East. Capon's Views of Westminster, Street View No. 8. Reproduced by Permission of the Huntington Library, San Marino, California.
"architectural school." In the work of Capon, mass and the effect of shadow are created through a profusion of architectural detail. Each element in the Gothic cathedral at the right of the scene (Fig. 81) in the tower of Westminster Hall at the center background of the scene and in the buildings on King Street at the left of the picture, is clearly and precisely delineated. Every building and cobblestone, every curl and swirl in the Gothic arches, is carefully and accurately rendered by the artist. The approximation of mass is achieved by the accumulation of fine detail. The detail, in fact the entire effect of the drawing, is tantamount to photographic. In Capon's work we find not the free-wheeling brushwork of de Loutherbourg, but rather the painstaking attention to detail of a.banknote engraver.

Figure 82, Capon's design for a backscene at Drury Lane, 1809-10, indicates a perfect uniformity of technique on the watercolor pad and on the backscene canvas. The same types of architectural forms, the same attention to detail, and the same technique of building up mass through the inclusion of numerous highly detailed elements are found in Figures 82 and 81.

The scene, 28 feet high by 21 feet wide, was painted for John Kemble's Shakespearean revivals at Covent Garden, 1809. The composition contains a composite of buildings from all over the British Isles. The drawing presented is taken from the Magazine of Art for 1895 (London: Cassell and Company, Ltd.) page 291. The original drawing is believed to be in the possession of the Shakespeare Memorial Library at Stratford-upon-Avon, England.
Figure 82. An Ancient Street. Scene design by William Capon, Drury Lane, 1809-1810. The Magazine of Art, 1895. The original drawing is believed to be in the possession of the Shakespeare Memorial Library, Stratford-upon-Avon.
Conclusions.—We have examined works selected to reflect the body of extant designs of de Loutherbourg, Richards, and Capon, and have found that within a reasonably narrow range of deviation, the stage works of these three painter-designers demonstrate a continuity of style and general treatment of subject matter remarkably parallel to the nontheatrical works of the three men. These three painter-designers have been selected as representatives of the romantic, modified romantic, and architectural "schools" of painting, employing the term "school" in the broadest sense: their works tend to exemplify general techniques used in creative representation as practiced by the several other artists in each "school."

The parallels between nontheatrical works and scene designs appear to be wholly consistent with the theses of Kermode and Jackson, and bear up well along the entire spectrum of each artist's work. Presented as a working hypothesis, then, we may state: given the nontheatrical works of a scene designer, we may infer from these works the scene painting style of that designer. On the basis of this hypothesis, and on this basis alone, are we able to discuss the "stage picture" created by the earliest scenic artists of the Chestnut Street Theatre.

The Stage Picture at the Chestnut Street Theatre.—No known examples of the scene designs of Milbourne, Holland, Reinagle, or Robbins have survived the years. However, nontheatrical works of
Milbourne, Holland, and Reinagle have been preserved by the New York Historical Society. It is from these works that we must attempt to develop a concept of the appearance of the scenery on the New Theatre's stage.

To my knowledge, only one example of Milbourne's work has been preserved. Presented in the present study as Figure 83, the general style of this work lies midway between that of Richards (see Fig. 79 and Fig. 80), and that of Capon.\textsuperscript{46}

The view given in Figure 83, especially of the Government House shown in the lower right foreground, lacks the crispness which characterizes Capon's work, and much detail is lost in shadowed areas. Treatment of detail is, in general, less well defined than might be expected in Capon's work, yet somewhat more defined than might be expected in a similar work by Richards. The technique exhibited in this painting of Milbourne's, executed in 1798, probably reflects the blend of this artist's early training in Portsmouth under an unknown master and the training which he received under de Loutherbourg and Richards at the Covent Garden theatre, and might be characterized as belonging to the "modified architectural school."

Considering the high degree of excellence and taste employed

\textsuperscript{46}The Milbourne print (Fig. 83) is taken from I.N. Phelps Stokes, The Iconography of Manhattan Island: 1498 to 1909 (New York: Robert H. Dodd, 1915), I, Plate 66. This title is hereafter referred to as Iconography.
in this painting (Fig. 83), and assuming that works closely resembling this were placed on the stage of the New Theatre by Milbourne, one is not surprised that the citizens of Philadelphia were so pleased with the new artist whom Wignell had imported from England. The work of a highly trained and well skilled draftsman and painter is to be seen in this view of the Government House, New York.

John Joseph Holland, who Brightened the Stage Picture.--For all Milbourne's excellence, he was surpassed by J. J. Holland. Holland, a pupil of Marinari, is represented in Stokes' *Iconography* by six paintings, three of which are from the period of Holland's stay at the Chestnut Street Theatre. Figure 84, Broad Street and Federal Hall, a watercolor drawing, was executed by Holland in 1797. The similarity to Capon's style and technique is inescapable. Holland's work displays the same crispness, the same definition, as the work of

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Marinari replaced Novosielski at the King's Theatre. Both men designed for Noverre's ballets and operas, and it is reasonable to conclude that the two men, both products of the Italian tradition, probably painted in what might be called a "house" style—i.e., a style pleasing to the Haymarket Theatre management and suitable to the operas of Noverre. While admittedly a conjecture, this would explain the similarity between the works of Holland, who studied with Marinari, and the work of Capon, who apprenticed with Novosielski.

This distinction is important, for Holland's style appears to have undergone some change during the latter years of the artist's life.

*Iconography*, I, Plate 67. The other works from this period of Holland's painting are given in *Iconography*, I, 68a (1799) and 68b (1798).
the English designer. Like his English counterpart, Holland
delineates every brick, cobblestone, and shingle. Although the
Federal Hall, at the center of Holland's drawing, seems to skew off
slightly to the right of the picture, the remainder of the drawing
gives the appearance of having been executed with the assistance of
architect's tools.

Holland's employment of highlight and shadow is excellent.
Unlike the painters of the "school" which de Loutherbourg exemplifies,
Holland delineates detail like Capan, rather than suggests it.

Examination of the building in the right foreground indicates this
attention to detail. Holland's other works from this period exhibit
the same approach to representation and resemble in every stylistic
detail the work illustrated in Figure 84. 50

A comparison of the work of Milbourne with the work of
Holland, suggests that these first two scenic artists of the New

50 Figure 64 gives rise to an interesting speculation. The
entire drawing is cross-hatched with a fine grid. Stokes suggests
that this grid is "evidently to facilitate the making of the
lithographic reproduction" (Iconography, I, p. 446). But what if this
were not the purpose of this grid? Suppose it were a grid placed on
the watercolor to enable a scene painter to transfer to a backscene
canvas the drawing on the watercolor paper? The idea is fascinating
and not altogether without merit. Grid lines of this sort have been
employed by scene designers since at least 1633--Inigo Jones's design
for a relief scene in The Shepherd's Paradise, for example--and are
employed by scene designers of the modern theatre. Perhaps this
painting is, in fact, the earliest known example of American scene
design.
Theatre shared a common design tradition in their nontheatrical works. But how are we to connect the nontheatrical works of these men with the stage picture in the Chestnut Street house? It has been hypothesized that the scene design works should follow the style and technique of the nontheatrical works of a given painter. Through inference it is possible to demonstrate that scene painting in the architectural style probably prevailed on the stage of the Chestnut Street Theatre.

**John Worroll, Itinerate Painter at the New Theatre.**—The Warren letters contain frequent allusion to John Worroll, a New England scene painter often employed by William Warren to assist with the preparation of scenery for the Philadelphia and Baltimore theatres. Two letters from Worroll to Henry Warren and an entry from William Warren’s Journal testify to Worroll’s involvement with

51 The name is also given as Warrall and Worrell. This painter, who was active in Providence about 1809 and in Boston from 1811-13 and possibly later and who appears to have been active in Philadelphia and Baltimore as late as 1820, is not to be confused with James Warrall, a sometime scene painter and manager in the southern theatre circuit during much of the same period.

52 The contents and sketches of these letters are discussed in detail in the section of the following chapter dealing with the New Theatre’s production of Aladdin.
the Chestnut Street Theatre company. According to the *Journal* entry for 10 November, 1813:

The scenery of this play [Mormon] was painted by [Joe] Jefferson and his son Tom - also that of Benyovsky, Worroll being busy in Philadelphia preparing the Ethiop [sic] - Robbins at New York with Cooper and Price for the present.53

No example of Worroll's work at the Chestnut Street company theatres is available. However, an extremely early example of this designer's work from another theatre is available, and from it we may infer the nature of his settings for the Warren and Wood establishments. A drop, painted by Worroll circa 1809, has been preserved by the Rhode Island Historical Society. A reproduction of this drop is presented in the present study as Figure 85.

An excellent history of the Providence backdrop drop is presented in *Antiques* for November, 1943 (pp. 236-27), in an unsigned editorial. According to the author of this editorial:

One of the most interesting early views of Providence is found on a drop curtain used originally in the old Providence Theatre on Westminster Street, which began its existence about 1790. Around 1809, John Worroll (or Warrall) of the Boston Theatre was commissioned to paint a drop curtain for the theatre showing a view of the fashionable east side of the city as seen from Federal Hill. . . . It seems that

53 The *Ethiop* opened January 1, 1814, for its Philadelphia premiere.
Figure 85. View of Providence, ca. 1809. Scene design by John Worroll. Courtesy of the Rhode Island Historical Society, Providence, R.I.
the purpose of the curtain was to lend an air of respectability to the theatre.\textsuperscript{54}

But for the foliage, which seldom appears in the works of Capon, this view of Providence might well have come from the brush of that English artist. Worroll’s technique, like that of Capon, Milbourne, and Holland, is the technique of the architect and engraver, and Worroll’s scene design work exhibits a delicacy which surpasses that of Holland’s nontheatrical works. So exact was Worroll’s detail that "the curtain literally 'stopped the show,' as the audience was much more interested in this representation of their own homes than in the drama."\textsuperscript{55}

As illustrated in Figure 85, it is apparent that Worroll’s technique is both ingrained and accomplished. It must be concluded, therefore, that with allowance for deviation to accommodate specific dramatic requirements, the scene design work of Worroll was:

1. In the tradition of Capon and the architectural "school," a tradition shared by Milbourne and Holland;

2. Acceptable to Warren and Wood, a fact derived from the continual employment of this artist over nearly a ten year period;

3. Represented by scene designs, in a manner closely approximating that illustrated by the backstage view of

\textsuperscript{54}Authority for this article is given as "Willard's History of Rhode Island Stage."

\textsuperscript{55}History of the Rhode Island Stage.
Providence (Fig. 85) on the stages of the Chestnut Street Theatre company.

The Temporine Influence of Time: Emergence of an American Style.--Based on the evidence available, it would appear that until at least the end of the first decade of the nineteenth century, the painting styles and techniques of Milbourne and Holland prevailed on the stages of the Chestnut Street Theatre company. Evidence from the Warren Scrapbook and from the brush of Hugh Reinagle, however, suggests that the strict architectural quality of the English painters in Philadelphia began to mellow and soften, ultimately to strike a median between the "school" exemplified by the works of de Loutherbourg and the "school" exemplified by the works of Capon.

Figure 86, Hugh Reinagle's View of the Elgin Botanic Garden, drawn about 1816,56 indicates the nature of this "mellowing" trend. The conservatory, in the right middle-ground of the painting, is executed with all the attention to detail, the precise exactness of line, that we have come to associate with the works of Holland, Reinagle's teacher, and Milbourne. But the foliage in the foreground and the complex play of light and shadow suggest a developing style which is quite opposed to that of the English scene painters in Philadelphia.

56Iconography, IV, Plate 952.
Reinagle's *American Theatre, New Orleans*, executed about 1830, suggests a further change. Line has begun to soften, to become sketchy. This does not appear to be a deterioration, but rather a deliberate stylistic change from the earlier works.

Reinagle's works in the later years of his life, as exemplified by the New Orleans painting, indicate a style which is unique, although clearly derivative, based on the artist's early training with Holland. Consistent with our working hypothesis, it must be concluded that Reinagle's scene design style followed closely the changes found in his nontheatrical works.

The shift away from the architectural style is also suggested by works from the brush of Henry Warren. Figures 71, 72, 73, and 74 comprise the totality of Warren's known scene designs. Unfortunately, their subject matter is of such a specialized nature that they fail to reveal the scope of the artist's scene design style. Furthermore, because of the unique quality of the subject matter, it is difficult, if not impossible, to relate these designs to Warren's nontheatrical works.


58 It should be noted that by 1816, even Holland's style has undergone a considerable change. Three watercolor drawings have been preserved by the New York Historical Society (Iconography, III, Plates 82Ba, 82Bb, and 82Bc) and each suggests strongly the freedom of de Lotherbourg. Without identification, it would be virtually impossible to identify these works as having come from the brush of Holland.
paintings. However, some detail studies in the Scrapbook assist us in revealing a relationship between the artist's scene and nontheatrical designs.

Figures 87 and 88 have been selected from a series of drapery and window studies executed by Henry Warren. None of these studies is dated. The studies appear to have been hastily executed, apparently in watercolor or ink wash. What is of particular interest to the present study is the backdrop or "backing piece" which is to be seen through each window. The relationship between these backing views and the nontheatrical works of Warren is striking. The style and composition of the view through the window of Figure 87 are strongly reminiscent of the riverbank view in Figure 68, Picnic Sketch. Each represents a bucolic pastoral, and each freezes time and motion in the painting. The rendering of figures, animals, and foliage in both Figures 87 and 88 is excellent, and Warren has achieved a sense of depth in the studies by rendering the landscape views in a soft and feathery technique.

While the back-views in these studies represent a style which

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59 The term "backing piece" is employed in the broadest sense, for the landscape scene outside of each window may have been painted directly onto the flat on which the window was painted or mounted. The studies do not indicate the relationship of the back-view to the window unit. Practice of the period suggests that either relationship might have been employed; probably the question of whether or not the window was practical determined the choice.
Figure 87. Drapery Study. Henry Warren, artist. Warren Scrapbook. OSUTC Film No. 1759*.
Figure 88. Drapery Study.
OSUTC Film No. 1759*.
is considerably removed from that of Holland and Milbourne, the detailing of architectural forms in the studies indicates no such deviation. This is to be seen, to some extent, in the sash work in Figure 87 and in many of the other studies preserved in the Scrapbook. This same architectural detailing is to be found in the scene design entitled "Madeye Village" (Fig. 74), and in the house shown in the left background of "The House Built on the Rocks . . .," (Fig. 69).

The movement away from the architectural classicism of Holland and Milbourne is not surprising. This divergence, as seen in the works of Reinagle and Warren, parallels the development of romanticism in the United States beginning about 1804 and culminating after 1835 in the Hudson River School. It represents and reflects the progress in art of the United States as an emerging nation, drawing away from English tradition and English influences in its new found nationalism.60

Conclusions Concerning the Stage Picture at the New Theatre.

--Employing the works of de Loutherbourg and Inigo Richards

60 It is perhaps paradoxical that while American artists were "discovering" the wonders and the splendor of their raw and untamed country and were casting about for forms which would capture and express this splendor, they were at the same time moving in the direction established by de Loutherbourg, Turner, and Constable. Expressed as a kind of "classical romanticism" at first, the mode of representation employed by the purely American artists soon came into its own, far surpassing in romantic spirit the works of the English painters.
to exemplify one "school" of representation and the works of William Capon to exemplify the opposite "school" of representation, it has been demonstrated that the nontheatrical paintings of an artist tend to exhibit characteristics of style and technique which are similar to the artist's scene design painting. First, the style of painting exemplified by the works of de Loutherbourg and Richards has been termed "romantic" in the present study, a designation which is intended to suggest nothing more than a loose, free-wheeling technique, a propensity for suggestion rather than statement or delineation, and an inclination toward the picturesque and rustic in choice of subject. The style exemplified by Capon's works has been termed "classical" and "architectural," suggesting that it is characterized by a formality of composition and a technique whereby compositional elements are meticulously constructed by the amassing of numerous, finely delineated details.

Second, it has been posited that the scene designs of Milbourne and Holland, artists whose nontheatrical paintings are in the style exemplified by Capon, were in the architectural or classical tradition. The fact that John Worroll, whose only known scene design is in the architectural tradition, painted with some regularity at the Chestnut Street Theatre tends to support the conclusion that the scenery which formed the stage picture of the New Theatre in Philadelphia was, at least during the first fifteen years of the
theatre's history, executed in the classical-architectural tradition.

Finally, it seems apparent that sometime during the period in which Henry Warren served as principal artist for the New Theatre, a gradual movement away from the Milbourne-Holland tradition took place, and in its stead developed gradually a style more closely related to that exemplified by the works of de Loutherbourg and Richards.
CHAPTER VI

THE STAGE PICTURE IN PRODUCTION

Until the appearance of the Warren Scrapbook, it would have been impossible to state more concerning the stage picture at the Chestnut Street Theatre than has been presented in the pages of the preceding chapter. McKenzie,¹ making use of the prompt books from the New Theatre, undertook an analysis of the employment of wings and borders on the Philadelphia Theatre stage, but developed this analysis only to a limited degree, because of the lack of iconographic support materials. With the single exception of the 1794 view of the Chestnut Street Theatre interior (Fig. 21), no known iconographic materials existed prior to the "discovery" of the Warren Scrapbook. With materials from the Scrapbook, however, it now becomes possible to reconstruct conjecturally a scene from Andrew Cherry's The Travellers, and to reconstruct with some assurance the Chestnut Street Theatre production of Aladdin.

¹See bibliography.
An Examination of The Travellers

Figures 71, 72, and 73 of the present study have been
tentatively identified as sketches for Act I, scene i, of Cherry's
The Travellers. As described by Cherry, the scene was to be:

A beautiful Garden in the Chinese style,—with many
bridges—intersecting canals, &c.—

Of the three sketches, Figure 72 most closely resembles Cherry's
description, and lends itself to the action which follows the opening
of the play.

At the conclusion of Celinda's song, shortly after she and
Delvo make their entrance over the bridges, "Zaphimiri and two pages
appear in a boat from R.H.," i.e., from the stage right side.
Warren's setting, as given in Figure 72, accommodates this action
nicely.

Staging of Act I, Scene i.—The setting appears to have been
made up of two platform set pieces and a backdrop complex, probably
made up of a backdrop cloth or shutters, cut wings, and possibly a
practical bridge. Properly speaking, the bridge should also be
regarded as a set piece. Since the term set piece appears so often in
connection with scenery at the Chestnut Street Theatre during the
period under consideration, it would be well to digress from The
Travellers at this point to consider in some detail the set piece as
it was employed on the Chestnut Street Theatre company's stages.
Set pieces, or pieces of scenery which stood apart from the
wings and backscene, and which usually consisted of ground rows,
platforms, ramps, stairways, cut-out trees, cottages, bridges, and
walkways, were undoubtedly employed in England as early as 1640, when
Inigo Jones employed ground rows in his production of Salome.
The set piece was widely employed by de Louthembourg and
was evidently a regular element of production in the United States by
1800.

Documentation of set pieces in use at the Chestnut Street
Theatre is scattered. The earliest known documentation appears in
William Warren's Journal, the entry for Wednesday, July 29, 1801:

Improvements abt. [about] to commence in the Theatre
[i.e., the Chestnut Street Theatre]—we have taken the
South Street Theatre on sharing—Francis and myself
manage the same—William and Reinagle lend us the
Wardrobe gratis—also music, books and set pieces.
(The italics are mine.)

Precisely what these set pieces consisted of is not recorded.

That they included platforms and ramps and a cut-out scene may be
inferred from the knowledge that one of the entertainments performed
during this short summer season was John Park's Bunker Hill, given on
the final night of the 1801 season at the Southwark. This work,
performed as an afterpiece to The London Hermit, received only one
performance by the company that year, yet scenically, it was an
elaborate and complex production. While "scenes were specially
painted, representing the camp at Charleston, troops passing in boats, Bunker Hill, Charleston burning, &c.,"2 these scenes probably did not represent much of a financial burden to the sharing company, for old drops, wings, and flats were undoubtedly painted over as needed. However, set pieces, if constructed especially for this single performance, might represent a substantial outlay of money, and it must be concluded that these were borrowed.3

It is known that the scenery for the Chestnut Street Theatre company's summer production of Bunker Hill matched, in every detail, the scenery from the original production. We have only to examine the original production, therefore, to discover the nature of the production by the Chestnut Street company at the Southwark Theatre.4

Bunker Hill was produced for the first time on February 20, 1797, at the Haymarket Theatre, Boston, with scenery by Audin. In the same year, Burk wrote to J. Hodgkinson, a New York manager, suggesting, that the play be produced in that city. Hodgkinson, appalled at the

2Durang, I, Chap. XX:IV, p. 69.

3Since the company operated in the summer of 1801 on a profit-sharing basis, with no guarantee of salary, it seems reasonable to conclude that any opportunity to conserve money would be employed by Francis and William Warren.

financial arrangements proposed by Burk, returned the manuscript immediately.

In his letter to Hodgkinson, Burk included a detailed description of the two set pieces necessary for the production of the play. The first of these set pieces was Bunker Hill itself:

The hill is raised gradually by boards extended from the stage to a bench. Three men should walk abreast on it, and the side where the English march up should for the most part be turned towards the wings; on our hill there was room for eighteen or twenty men, and they were concealed by a board painted mud colour, and having two cannon painted on it, which board was three feet and a half high.

Here, then, is a very early description of a set piece in use on the American stage. To the modern theatre practitioner, it appears naive. Allowing for about two feet of length and breadth per man, this structure must have been only about 6 to 8 feet deep, and perhaps 12 to 15 feet wide. If a "bench" were actually employed under the elevated end of the hill, we may assume a height at the highest point of about 18 inches. The entire ramp set piece was faced with a masking piece—what Southern refers to as a "raking piece"—painted to resemble earth.

Burk also described a second set piece, more imaginative and far more whimsical than the piece for Bunker Hill. This set piece, employed in the final act of the play, seems highly improbable when described; when lighted by the soft glow of flickering oil or candle
lamps, and placed well upstage, the piece was undoubtedly extremely effective, however. As described by Burk, the set piece consisted of:

A square piece about nine feet high and five feet wide, having some houses and a meeting-house painted on fire, with flame and smoke issuing from it, should be raised two feet distance from the horizon scene (i.e., the backscene) at the back of your stage, the windows and doors cut out for transparencies—in a word, it should have the appearance of a town on fire. We had painted smoke suspended—it is raised at the back wing, and is intended to represent Charlestown, and is on a line with the hill, and where it is lowest. The fire should be played skillfully.

Here we have what might be termed a highly specialized ground row, that is, a unit which consisted of a free-standing scene, painted to resemble a city seen at a distance. The unit was pierced by cut-outs, so that when properly back-lighted it would have the appearance of being on fire. The "smoke," which Burk described as having been "suspended," may well have been worked in the scene in a manner similar to that described by Sabbattini in discussing the operation of clouds. We may speculate that since smoke generally rises, the smoke-pieces were probably raised from the floor as the "fire" commenced to play, rather than being lowered in from the flys, in the manner of clouds.

The effects achieved by these set pieces described by Burk were duplicated on the stage of the Southwark Theatre in the production of Bunker Hill mounted by the summer company of the Chestnut Street Theatre. Whether the precise arrangement of set...
pieces was employed cannot be known, but there is little doubt that those set pieces which were employed were capable of creating effects similar to those achieved by Park at the Haymarket Theatre, Boston.

Without positive knowledge that set pieces were employed by the Chestnut Street Theatre company it would be difficult to develop a logical reconstruction of Act I, scene i, of The Travellers. However, with the understanding that set pieces were commonly employed, it is with some assurance that the following reconstruction is presented.

This reconstruction of The Travellers is admittedly conjectural, and is based on two suppositions:

1. That the identification of the drawing given as Figure 72 as the setting for Act I, scene i, of Andrew Cherry's The Travellers is, in fact correct;

2. That the scenic details indicated by Warren in his sketch were, in fact, practical, and not merely painted onto a backdrop.

A survey of the plays produced at the Chestnut Street Theatre and the remarkable similarity between Cherry's description of the scene and Warren's sketches of Chinese gardens, especially that sketch presented in the present study as Figure 72, has led this author to the conclusion that these designs are studies for Act I, scene i, of The Travellers.

The conclusion that the elements in Figure 72 are practical is
based upon two factors. That Warren has designated the drum-like
device in the companion sketch (Fig. 71) as "seat," suggests that
this piece was intended to be practical; this piece is repeated,
without alteration, in Figure 72. Moreover, the fact that the figures
in the foreground of the sketches (Figs. 71 and 72) are included
suggests that they are representations of actors in the scene, rather
than figures painted on a backscene. While it is true that figures
were from time to time included in the detail of a backscene during
this period, it is seldom that figures of such prominence were
rendered.

As I have suggested, Figure 72 appears to indicate utilization
of at least three set pieces, possibly more. Two platforms appear to
have been employed: one, on which Celinda is seated, and a second,
somewhat lower platform, on which DeLyo is seen standing. For ease
of identification, these platforms are hereafter referred to as the
Celinda unit and the DeLyo unit.

The Celinda unit, shown in the left foreground of the sketch,
stands 2 to 4 feet above the level of the stage floor. The DeLyo
unit appears to be the same height as the Celinda unit at stage right,

5This height is based on the presence of four steps leading to
the platform from the stage floor. A rise of as much as 1 foot was
employed in Chestnut Street Theatre scenery pieces, so it may be
concluded that the maximum height of this unit was probably not
greater than 4 feet.
but slopes sharply downward as it approaches center stage to a height of only a few inches at the edge of the "water," center. The water of the canal, probably formed by a blue ground-cloth, rests on the stage floor.

The earth embankment, or rocky bank, directly upstage of the standing figure of Delvo, is probably a cut wing or cut set piece. Examination of the drawing indicates what is clearly an opening directly upstage of Delvo. Assuming that the bridge shown in the drawing is practical, this opening in the cut wing undoubtedly allows for access to the upstage area and to the bridge over which Celinda and Delvo enter and exit.

Whether or not the bridge was practical is problematical. The precedent for the employment of a practical bridge at the Chestnut Street Theatre was established as early as 1803, when the company performed Kotzebue's Pizarro, as adapted by Sheridan. Because of the action of this play, Pizarro could not be staged plausibly without the use of a practical bridge. From this we may deduce that the employment of practical bridges occurred in the New Theatre at least as early as 1803, and there is no reason to suppose a practical

6 James, Cradle of Culture, p. 21.
bridge was not employed in the Chestnut Street Theatre production of *The Travellers.*

Functionally, this arrangement of scenery would have been quite satisfactory for the needs of the first scene of Cherry's play. Celinda and Delvo made their entrance from the right hand side of the sketch (stage left), crossed the bridge shown in the left center background of the sketch, and took their positions on the set pieces in the left foreground (stage right) by entering the fore-scene through the cut wing or cut set piece at the left rear (upstage right) of the sketch.

At the conclusion of her song, Celinda crosses right, and Zaphimiri and his attendants arrive on the scene by boat. The boat entered from the left side of the drawing (stage right) from behind the cut wing bank, and came to rest in the "V"-shaped landing place between the rocky bank and the point of ground at the right center of the sketch. To exit, the boat would merely retrace its journey, disappearing behind the rocky bank (stage right).

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7 De Loutherbourg is thought to have introduced the first practical bridge in 1770, for the Drury Lane production of Pizarro, and there are records indicating the employment of practical bridges in the United States during the second quarter of the nineteenth century. In the following pages, under a discussion of the Chestnut Street production of *Aladdin,* is introduced the only known documentation of the employment of bridges at the New Theatre.
The precise manner in which this boat was rigged cannot be determined. Evidence which will be presented in the subsequent discussion of Aladdin suggests that an arrangement of blocks and tackle might well have been employed. The same rigging employed for the arrival and departure of the boat in Act I, scene 1, was probably also employed in Act II, scene 1, when before "a Panorama View of the City of Constantinople, the Bosphorus, &c., . . . Prince O'Gallagher, two pages, Celinda and four attendants, land from their barge."

Aladdin

The reconstruction of Cherry's The Travellers is conjectural at best, however logical and appealing the arguments in favor of such a conjecture may be. With the Chestnut Street Theatres company's January 1, 1817 production of Aladdin, we are on considerably firmer ground. In the preceding chapter, it has been cited that frontispiece plates and illustrations from both theatrical and nontheatrical publications served the Chestnut Street designers as sources for scene designs. Of still greater interest to the present study are three other sources consisting of descriptions and sketches of London theatre productions, designers' models of London productions, and Juvenile Drama models based on actual London productions.

It would appear that all three of these sources were supplied

8See p. 314.
Henry Warren by John Worroll for the Aladdin production. While the models themselves probably perished in the fire which destroyed the New Theatre or perhaps were returned to their owner, details of the production have survived in a letter preserved in the Warren Scrapbook.

The Aladdin Text. — Before undertaking a discussion of the scenery for this production, it is necessary to authenticate the production itself. No prompt book remains for this elaborate extravaganza, nor has it been clear what script was employed. However, in the archives of the University of Pennsylvania library is preserved a copy of the libretto for the production. This libretto, printed in 1816 evidently in preparation for public sale on the January 1, 1817 opening of the production, records that "the scenery, machinery, dresses and decorations are entirely new," and that the scenery was designed by Masters Warren, T. Reinagle, and their assistants. 11

9 W.B. Wood records that when the fire destroyed the Chestnut Street Theatre, among the many items lost were "models of scenery and machinery, imported at a large cost ..." (Wood, p. 237). Two sheets of West's costumes have been preserved in the Warren Scrapbook, but neither is for Aladdin.

10 No author is given. The fly-leaf reads: "Songs, Choruses, &c., in the Grand New Dramatic Romance Called Aladdin; or, The Wonderful Lamp, as Performed at the Philadelphia Theatre, (Philadelphia: T. Resiler, 1816)."

11 T. Reinagle" is Thomas, the younger brother of Hugh Reinagle.
The story of Aladdin and his magic lamp is an old one, and appears in the English theatre, as a musical pantomime, at least as early as 1768.12 The version which was performed at the New Theatre, a "melodramatic romance," received its first performance at Covent Garden Theatre on April 9, 1813, where it met with instant success. This version was first performed in the United States in New York in 1815.13 So far as I have been able to determine, neither prompt book nor acting edition of this version remains.

However, in April, 1826, George Soane's Aladdin, a Romantic Opera in Three Acts was performed for the first time at Drury Lane Theatre. Apparently Soane merely added music to the existing Aladdin script. The scene descriptions and the lyrics of the songs coincide in most details with those in the libretto of the Chestnut Street production—a libretto presumably taken directly from the Covent Garden production in 1813.14 Table 1 indicates the similarity between the two scripts. In view of these similarities, it seems entirely reasonable to conclude that, perhaps with minor variations, the Soane

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14Several minor changes from the Covent Garden production were made by Warren and Worroll. These changes are discussed by Worroll in his letter to Warren, and appear in Table 1 at II, 4, and in the bracketed inserts in the Chestnut Street Theatre scene listing.
text is substantially the same as the text employed at the Chestnut Street Theatre in 1817.

In addition to the similarities indicated in Table 1, a comparison of specific scene and staging descriptions in the libretto and in the Soane script lends further support to the conclusion that the two versions are virtually identical. The following example, Act I, scene 1, serves to illustrate this:

<table>
<thead>
<tr>
<th>Chestnut Street Libretto</th>
<th>Soane Text, Drury Lane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scene 1 - The Magician's Cave</td>
<td>Scene 1 - The Magician's Study, with the Book of Fate on a stand.</td>
</tr>
<tr>
<td>The Genius Olrock to the Magician.</td>
<td>Thunder and solemn Music - the Magician's Study slowly sinks, and discovers Olrock, the Genius of the Air, seated on a black cloud, which envelopes the scene.</td>
</tr>
<tr>
<td>Olrock disappears, and the scene is imperceptibly changed to A DISTANT VIEW OF THE MOUNTAINS OF UTOLOPHO.</td>
<td>The clouds slowly rise with Olrock and he disappears. . . . and in the horizon is discovered a distant view of the mountains [of Utolpho].</td>
</tr>
<tr>
<td>Abanazar sets forward in pursuit of the Magic Lamp, followed most reluctantly by his dumb slave Kazrac.</td>
<td>Abanazar retires . . . Kazrac, trembling with fear, trots after . . . Exeunt over the mountains.</td>
</tr>
</tbody>
</table>

From this evidence, it appears that the libretto for the Chestnut Street Theatre's production of Aladdin, and the Soane version
TABLE 1

A COMPARISON OF SCENE DIVISIONS IN THE CHESTNUT STREET THEATRE ALADDIN
LIBRETTO AND THE SOANE ALADDIN FROM DRURY LANE

<table>
<thead>
<tr>
<th>Act and Scene</th>
<th>Chestnut Street Theatre, 1816</th>
<th>Soane, Drury Lane, 1826</th>
</tr>
</thead>
<tbody>
<tr>
<td>I,i</td>
<td>The Magician's Cave</td>
<td>The Magician's Study, with the Book of Fate on a stand, R.</td>
</tr>
<tr>
<td>ii</td>
<td>A Street in China Tartary</td>
<td>A Street near the house of the Widow Ching Mastapha</td>
</tr>
<tr>
<td>iii</td>
<td>The Apartment of the Princess</td>
<td>An Apartment in the Palace of the Princess Badroulbadour, an ottoman R., Folding doors, C.F., with crimson curtains before them</td>
</tr>
<tr>
<td>iv</td>
<td>The Mountain of Utolpho</td>
<td>A Stupendous Mountain, a Blasted Cedar at the foot, L.C.F.</td>
</tr>
<tr>
<td>v</td>
<td>Interior of the Mystic Cavern</td>
<td>The Magic Cavern, a spiral stone staircase reaching to the top of the cavern, R.U.E. The wonderful lamp burning in an avenue, C. Over the avenue an emblamatic figure of the Genius of the Ring. An avenue of tress, L., loaded with beautiful fruit.</td>
</tr>
<tr>
<td>Act and Scene</td>
<td>Chestnut Street Theatre, 1816</td>
<td>Soane, Drury Lane, 1826</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Ivi</td>
<td>Aladdin's Mother's Cottage</td>
<td>The inside of Mustapha's cottage. A door, R.C.F. A cupboard, R.F., a window, C.F.</td>
</tr>
<tr>
<td>vii</td>
<td>The Royal Bath</td>
<td>The Grand Entrance to the Baths. Large folding doors, C.F., opening inwards. Over the doors is written, in large letters &quot;ROYAL BATH.&quot; A high wall encloses the side, R.</td>
</tr>
<tr>
<td>II,i</td>
<td>Aladdin's Cottage</td>
<td>Inside of the Widow Mustapha's Cottage. A door, R.F. A window, C.F., a cupboard, R.C.F.</td>
</tr>
<tr>
<td>ii</td>
<td>Mountains and waterfalls; over them are built Chinese bridges, across which pass the Grand Procession prepared for Aladdin by the Genie of the Lamp.</td>
<td>A verdant plain on the riverbank. Bridges, with waterfalls rising one above the other, C.</td>
</tr>
<tr>
<td>iii</td>
<td>Tartarian Caravansera</td>
<td>A Khan, or Chinese Caravansary</td>
</tr>
<tr>
<td>iv</td>
<td>Interior of the Palace of Aladdin [A Hall]</td>
<td>The Exterior of Aladdin's Palace, occupying the whole of the space from R. to L.</td>
</tr>
<tr>
<td>Act and Scene</td>
<td>Chestnut Street Theatre, 1816</td>
<td>Soane, Drury Lane, 1826</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>II,v</td>
<td>Kazrac's Chamber</td>
<td>Kazrac's Chamber. A door, R.C.F., a recess, with a couch, L.C.F.</td>
</tr>
<tr>
<td>vi</td>
<td>Interior of the Palace of Aladdin [A Hall]</td>
<td>The Exterior of Aladdin's Palace</td>
</tr>
<tr>
<td>vii</td>
<td>[vii--The Flying Palace of Aladdin]</td>
<td>A Forest</td>
</tr>
<tr>
<td>viii</td>
<td>[ix--A Splendid Saloon in the Palace of Aladdin]</td>
<td>The Plain where the Palace stood. [During the action of this scene, the Palace of Aladdin descends.]</td>
</tr>
<tr>
<td>ix</td>
<td>[x--Desert Plain]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[xi--The Palace of Aladdin descends.]</td>
<td></td>
</tr>
</tbody>
</table>
(Drury Lane, 1826) of this play were derived from the same source. Evidence presented in the Worroll letter indicates that this common source was Charles Farley's text for the 1813 Covent Garden production of Aladdin. Before examining Worroll's letter in detail, however, let us first consider the pictorial materials associated with the 1813 production of Aladdin, for through them we may validate the materials in Worroll's letters to Henry Warren.

The Pictorial Resources. — Nicoll records three productions of Aladdin prior to the Covent Garden production on 9 April, 1813: 15


2. Theatre Royal, Norwich. Monday, 6 April, 1810. A "drama" by an unknown author.


These early productions notwithstanding, it appears to have been Farley's version of the tale that caught the public's fancy, and the Covent Garden production was an instant success. In keeping with the print-seller's practice of the period, Juvenile Drama sheets of Aladdin were immediately run off and placed on sale. 16 Developing

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16 George Speaight, Juvenile Drama: The History of the English Toy Theatre (London: Macdonald and Company, Ltd., 1946). The sequence from production in a theatre to sale of Juvenile Drama sheets is given by Speaight on page 49.
initially from prints of theatrical portraits which were in vogue during the last decades of the eighteenth century, "sometime round about the year 1810 somebody had the idea of printing four small theatrical portraits on a sheet, instead of one large one."\textsuperscript{17} From these "single sheets" developed sheets containing all of the characters in a production, reproduced in miniature, in each of their several costumes. If all the characters, why not all the scenes also? "And so, alongside with the plates of characters there appeared plates of scenes, usually with a wing attached, all copied from and based upon the original production."\textsuperscript{18} (The italics are mine.)

In 1811, William West, probably the earliest publisher of Juvenile Drama plates, issued sheets of the characters in \textit{Aladdin}.\textsuperscript{19} These sheets are dated "June 1st, 1811," and it is therefore reasonable to assume that the costumes shown in these sheets represent those worn in the production at the New Theatre, Tottenham-street, London, which opened on May 13, 1811.

Following the opening of the Covent Garden production of \textit{Aladdin} in 1813, scenery and costume sheets were published by

\textsuperscript{17}Speaight, p. 19.

\textsuperscript{18}Speaight, p. 21.

\textsuperscript{19}The original sheets are in the Victoria and Albert Museum.
Mrs. M. Hebbard (or Hebbord), J.H. Jameson, and B. Perkins.

Between 1822 and the Drury Lane production of the Soane musical version in 1826, "revised" editions of the Juvenile Drama sheets were published by J. Allen (1822), Hodgson and Co. (1822-24), and William West (1824). A comparison of the Perkins and West plates (1813 and 1824, respectively), indicates that either both publishers shared a common source for their art work, or the Perkins' plates served as the source, with modifications, for West's work. The Juvenile Drama prints of the Covent Garden production of Aladdin have been cross-examined in four ways: (1) the Perkins and West plates have been compared, (2) the Perkins and West plates have been compared to the set descriptions appearing in the Soane text for the Drury Lane musical production, 1826, (3) the Perkins and West plates have been compared with the limited descriptions and staging requirements found in the 1816 Chestnut Street Theatre libretto of Aladdin, (4) the plates have been compared with the descriptions and sketches of the

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20 Speaight dates Mrs. Hebbard's costumes sheets 1812 (Speaight, p. 212), but I believe he is in error. Were this date correct, the costumes should, like those of West, reflect the 1811 production. They are in fact totally dissimilar.

21 Speaight (p. 215) gives the date as 1825, but plates in the British Museum and in the Victoria and Albert Museum bear the inscriptions "23 July, 1824," "8 August, 1824." One plate of wings, to be used with both Aladdin and The Forty Thieves, is dated "2 December, 1825."
London production at Covent Garden found in Worroll's letter to Henry Warren. Based on these extensive comparisons and cross-comparisons, it is the belief of the present author that, within a relatively restricted range of deviation, the Chestnut Street Theatre production of Aladdin closely resembled the Covent Garden production, as illustrated by the Perkins and West Juvenile Drama prints. This thesis is explicated and supported below.


Worroll described the first scene in some detail, providing

22I have been unable to find specific dates for performances of Aladdin at Covent Garden subsequent to 1813, but Wyndham (Vol. II, p. 11) suggests that the play was in the Covent Garden repertory at least as late as 1820.
two sketches of how the scene appeared in London. In his letter of August 16, 1816, Worroll wrote:

The 1st Scene in London was a Cave, flats in 2 Cs, with wings appropriate--filled in with a variety of Cabalistical Characters, figures &c.--in the Center of the Stage was a Stand with Lights burning, the characters of which [i.e., the Cabalistical characters] are transparant--it sinks when the back does--it can be made separate from the flats of profile.  

Immediately following this description, Worroll sketched in the "Stand with Lights," presented in the present study as Figure 89.

Of the stand Worroll wrote:

The stand was of this form--the opening in the flats large [and] broken by profile--that when the back sinks it will appear perfect with the remainder of the Cavern with discovered Alrock [sic, the Character's name being given in the text as Olrock, the Genius of the Air] and the distant mountains.

Figure 90 shows West's Juvenile Drama print (1824) for Aladdin, Act I, scene 1. After comparison, one can claim that the "Stand with Lights" in Figure 89, except for the small step unit or socle on which it rests, is virtually identical with that found in the West print (Fig. 90). Although vaguely rendered, Worroll's sketch (Fig. 89) also delineates the "opening in the flats, large [and] broken by profile," shown distinctly in the West print.

Following this sketch and description, Worroll presented Henry

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Throughout the following discussion, punctuation for clarity has been added. Worroll's separation of phrases by hyphens has been retained, however.
Figure 89. Detail from John Worroll's letter to Henry Warren, showing the "Stand, with Lights burning." Aladdin, Act I, scene i. Warren Scrapbook. OSUTC Film No. 1759*.
Figure 90. Juvenile Drama Sheet for Aladdin, Act I, scene i. W. West, Publisher, 1824. Courtesy of Victoria and Albert Museum. OSUTC Film No. 1716*. 
Warren with a sketch of Olrock, showing both his costume and the black cloud upon which he appeared. This sketch appears in the present study as Figure 91. Worroll commented:

This is the dress—as Alrock [sic] appears seated on black clouds—when the back sinks he ascends and the Magician & Kazrack exit through the opening over Bridges of Rocks [sic]—set pieces—behind. You no doubt have plenty of them in the House. 24

Figure 92 presents Mrs. Nebbord’s costume plate for the Covent Garden production of Aladdin (1813). It is clearly the same character costume and pose as that shown in Figure 91. Where the left arm in Figure 92 is raised, Worroll’s drawing indicates the right arm extended; Figure 92 shows flower-like devices on the crown, where Worroll’s drawing indicates devices more closely resembling stars; aside from these minor differences and minor changes of detail in the drape of the cloak and the texture of the beard, the two drawings are virtually identical.

From Worroll’s description of Act I, scene 1, and from the contents of a list which Worroll appended to his letter of 16 August,

24 Throughout this and other passages, Worroll makes use of the phrase “when the back sinks.” By this I assume he may have been referring to the sinking of the backscene, through the employment of sloates and cuts in the stage floor of the Covent Garden theatre. However, in the absence of any reference to this system of scene-changing having been employed in America at this period, and from the absence of cuts or sliders in the Warren ground plan of the Chestnut Street stage (Fig. 23), I am of the opinion that the Chestnut Street Theatre production employed a different method of accomplishing these changes. This method is described in the following pages.
Figure 91. John Worroll's Sketch of the Character of Alroc, from the Covent Garden Production of Aladdin, ca. 1815. Warren Scrapbook, undated letter. OSUTC Film No. 1759*. 
Figure 92. Costume for the Character of Olroc, Aladdin. Juvenile Drama Costume Sheet, Mrs. M. Hebbard, Publisher. Courtesy of the British Museum. OSUTC Film No. 1461B#. 
1816, it is possible to develop a reconstruction of this scene, and to posit its mechanics. The list, and its prefatory comments, is cited below:

The models I have sent you you will be pleased with.
You can copy them if you choose. When you return them I will let you have more, or anything that I can spare shall be at your service.

The list then follows:25

8 Pieces .......... Ruins by Moonlight
12 Pieces .......... Mountainous Country
8 Pieces .......... Garden wings
6 Pieces .......... Violanthis Garden
7 Pieces .......... Trophy Hall
4 Pieces .......... Magic Cavern--changeable
1 Cloth, 2 wings .... A Splendid Saloon (this is what I meant was to answer for the 9th scene).

9 Pieces .......... Magic Cavern--complete
1 Cloth, 2 pieces ... Magic Castle
5G 4 Pieces .......... Romantic wings
4 Pieces .......... Ruins and Romantic scenery
1 Print from The Travellers

25This list appears to be a list of pieces requisite to the production of Aladdin, plus some miscellaneous pieces and scenes. Worroll's letter notes specifically that four models were sent: "I have sent you three models of Scenes--which will assist you considerably in the designs for the first [scene. These models consist of:] A Chamber in a Magic Castle [and] 2 Magic Caverns." (The emendations have been added by the present author in an effort to bring clarity to Worroll's somewhat choppy style.) Further in his letter Worroll states: "I have sent you a model of a very excellent [setting for a Splendid Saloon], with figures for the Capitols. The Subject is a new one in this country [the United States], and will answer with some alteration for this scene. It must be in the 2 [nd] G [rove]." A fifth item mentioned is the "Print from The Travellers," presumably a Juvenile Drama print, or book plate.
Act I, Scene 1: A Conjectural Reconstruction. --As
reconstructed by the present author, the scene was set in the first,
second, third, and fifth grooves, making use of the scene listed by
Worroll as "9 Pieces: Magic Cavern, Complete,"26 which included:

1. 2 rock wings

2. 2 "flats of profile"

3. 2 flats, forming the backscene of the cave

4. 2 flats, painted to represent the "distant mountains" of
   Worroll's description

5. 1 "Stand with Lights burning"

In the first grooves stood the pair of rock wings. The second
grooves held the "flats of profile," literally backscene flats with a
hole cut into them. The arrangement of these "flats of profile" is
illustrated in Figure 90, where they can be seen just upstage of the
"Stand with Lights burning." Such an arrangement was made necessary
by the effect which the scenic designer wished to accomplish, an
effect of a pierced rock wall.

In the third grooves stood the backscene for the cave. Up-
stage of this backscene, in the fifth grooves, stood a backscene
representing the "distant mountains." The "Stand with Lights burning"

26Since borders were, properly speaking, "house equipment," and
were of a relatively standardized nature, it seems reasonable to
conclude that in enumerating "pieces," Worroll was referring to
scenic pieces, exclusive of borders.
stood downstage of the profile flats, resting on the center trap between the first grooves.

The sequence of the change and transformation can be deduced from this arrangement and from the details of the change recorded in the Worroll letter in the Soane text. According to Worroll, the "Stand with Lights burning ... sinks when the back does ... with discovered Alrock and the distant mountains." Allowing for the fact that the backscene at the Chestnut Street Theatre did not sink, but was rather drawn off, the change occurred in the following manner. The "Stand with Lights burning" was lowered through the stage floor on the center trap, as the cavern backscene in the third grooves drew to discover Olrock seated on his cloud "which envelopes the scene." For "envelopes the scene," I believe we may read "fills the opening," the backscene having been only partially opened.

At the conclusion of Olrock's discourse, Worroll records that "when the back sinks [Olrock] ascends and the Magician & Kazrac exit through opening over Bridge of Rocks--set pieces--behind." Soane's description is virtually the same: "The clouds slowly rise with Olrock and he disappears ... and in the horizon is discovered a distant view of the mountains ... except [Kazrac and Abanasor, the Magician] right." Here, then, we find the cavern backscene, partially

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in sight, providing framing for the scene of "distant mountains" in the fifth grooves, and for the set pieces which stood in the space between the third and fifth grooves.

This conjectural reconstruction, like those which follow, is both logical and consistent with early nineteenth-century practice. It might be argued, of course, that the "distant mountains" backscene was placed in the fourth grooves, rather than in the fifth. However, since it is clearly indicated by Worroll that the space between the cavern backscene (third grooves) and the mountain backscene was occupied by set piece bridges and rocks, and since the distance between grooves was only about 6 feet, it must be concluded that the distance between grooves three and four was inadequate to accommodate the requisite set pieces. The mountain backscene must therefore have been placed in the fifth groove.

Act I, Scene ii: A Conjectural Reconstruction.—In his August 16, 1816 letter to Henry Warren, Worroll wrote: "I understand from [your brother] you are painting—The Street in China Tartary [Act I, scene ii], Aladdin’s Mother’s Cottage [Act I, scene vi; II, i], and the Tartarian Caravanseria [Act II, scene iii]." The Street in China Tartary was to be set in the first groove, according to Worroll’s instructions. Whether this setting was of Warren’s design or was taken from existing designs cannot be determined. Both the Perkins and West Juvenile Drama sheets of this scene have been preserved, and
with minor changes are extremely similar. Since many of the settings for Aladdin appear to have followed the London production closely, it is reasonable to conclude that the setting for Act I, scene ii of the Chestnut Street Theatre production of Aladdin closely resembled the design shown in the Perkins sheet, given in the present study as Figure 93.

**Act I, Scene iii: A Conjectural Reconstruction.**—This scene, like the preceding scene, may have been copied from the London production, although there exists no evidence to support such a conclusion. Worroll wrote of this scene: "Apartment of the Princess—2nd G[roove]. This scene I understand you have got painted." The source for this design is unknown. If the scene was based on the London design, as I believe it was, Perkins' sheet, (Fig. 94), indicates how it must have appeared. This sheet, with only minimal changes, was used by West in 1824.

Whatever the source of the designs for scene ii and scene iii, we may be reasonably certain of the manner in which the scene changes took place for the New Theatre production. Act I, scene i, was set in

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28 These scenes are strikingly similar to scenes which appeared in Italian and German theatres as early as the middle of the seventeenth century. A plate containing a similar scene from the German theatre, c. 1650, is included in Horst Richter's monumental study on the German Theatre of the Baroque. (Richter, Johann Oswald Harms, *Ein Deutscher Theater-dekorateur des Barock,* Band 58 in a series by Carl Neissen, [Emsdetten, W. Germany: Verlag Lechte, 1963].)
Figure 9k. Juvenile Drama Sheet for Aladdin, Act I, scene iii.
B. Perkins, Publisher. Courtesy of the British Museum. OSUTC Film No. 1461B#.
grooves one, two, three, and five. The rock wings in groove one were located in the upstage groove of the groove-set. Immediately downstage of these rock wings were placed the flats which made up the Street in China Tartary. On the signal from the prompter, the Street-scene flats were pushed on, thus hiding from view the Magician's Cave scene of Act I, scene i.

Act I, scene ii, the street scene in China Tartary, was played "in one," i.e., downstage of the first grooves, the Street backscene in the first grooves. While this scene was in progress, the setting for the Magician's Cave, which was not to be employed again during the production, was removed from the grooves.\textsuperscript{29} In the first grooves, upstage of the Street-scene, were run on the wings for the apartment of the Princess. The flats for the backscene of the apartment were run on in the third grooves. At the conclusion of Act I, scene ii, the Street-scene flats were withdrawn, discovering the apartment of the Princess (Act I, scene iii).

\textit{Act I, Scene iv: A Conjectural Reconstruction.} --Worroll wrote: "Scene 4th--is the Mountain in the 1st Grooves where the bushes recedes [sic] and discovers the Ring.--I sent you by letter

\textsuperscript{29}It is possible, of course, that elements of this setting were employed in the Mystic Cavern scene (I,v), but in view of the elaborate nature of this production, it seems far more reasonable to assume that an altogether new setting was employed for the Mystic Cavern.
yesterday an account of it, and a simple sketch." Worroll evidently
suffered some confusion in dating the two letters, for the letter to
which he refers was actually written, or at least postmarked, nine
days earlier on August 7, 1816.

Worroll's "simple sketch" is presented in the present study as
Figure 95. Of this sketch Worroll wrote:

You will understand it is the Bushes that part and
discover the Stone with the large Ring painted on
it—the bushes that open were in two frames [i.e., in
the London production] and slide from the center in
opposite directions in a Groove. The stone works up
in a manner that the Pillar in the Aethiop catacomb
works, except that Mr. Cummins [the carpenter and
machinist] would make it separate from the flats as
they are much in the way. . . . Let the opening be as
large as you think proper; it was not more than 4 to
6 inches high and about three feet wide, the sides
broken with profile bushes &c. 30

Reconstruction of this scene at the Chestnut Street playhouse
is extremely difficult. The Soane text (p. 16) indicates that "the
cedar tree parts, and reveals the stone." But according to Worroll
it is the bushes, in the left foreground of Figure 95, that part to
reveal the stone. These bushes, if we interpret correctly the
Worroll description, appear to have been made in two pieces, mounted
in grooves in the stage right flat and forming a miniature shutter-
within-a-shutter.

The Soane text offers little substantial assistance in

attempting to reconstruct the mechanics involved in the raising of 
the stone, but implies that in the 1826 musical version of Aladdin, 
the raising of the stone and the entrance into the cave was handled 
in a much more realistic manner than it was in the Chestnut Street 
production. In the Soane version, following the opening of the 
cedar tree, the stone and ring are revealed. Aladdin, at the bidding 
of the Magician, tugs at the stone, which lifts to reveal "a 
frightful chasm." A few lines later appears the direction that 
Aladdin exits "into the cave."

The fact that Aladdin exits into the cave suggests a rather 
large opening in the backscene, certainly larger than the "4 to 6 
inches high and about 3 feet wide" which Worroll describes.

Comparison of Juvenile Drama sheets indicates a change in staging from 
the 1813 to the 1826 productions of Aladdin in London. Perkins' 
sheet for Act I, scene iv, indicates that the stone, like that shown 
in Figure 95, was located stage right. West's sheet locates the stone 
stage right also. In the Perkins sheet, presented here as Figure 96, 
the stone is shown to be quite small, like that described by Worroll. 
while in the West sheet the stone is somewhat larger. Soane's 
directions for the 1826 production indicate that Aladdin enters the 

31 I have been unable to locate a script for the AEthico, which 
might possibly be of assistance in determining the manner in which 
the rising stone was accomplished.
Figure 96. Juvenile Drama Sheet for Aladdin, Act I, scene iv. Courtesy of the British Museum. OGDC Film No. 146228.
cave through the stage left (center) flat, or on the opposite side of the stage from the Covent Garden production. Skelt’s Juvenile Drama sheet for Aladdin, Act I, scene iv, shows an arrangement similar to that called for in Soane’s next. The Skelt drawing was executed sometime after 1840. 32

Consideration of this information concerning the staging for Act I, scene iv, of Aladdin suggests that in the Chestnut Street Theatre production, as in the Covent Garden production of 1813, Aladdin did not enter the cave through the hole which appeared when the rock was drawn back. The Soane text indicates that Aladdin’s disappearance into the cave occurs at the conclusion of the scene. It seems quite likely that in the Covent Garden production as in the Chestnut Street production, the backscene shutter simply parted to permit Aladdin access to the Magic Cavern and Garden of the Lamp, Act I, scene v.

It might be argued that Aladdin made his exit through a trap, but the requirements of scene v mitigate against this. In the 1826 Drury Lane production, Aladdin passed through the hole in the flats (Act I, scene iv), while Kasrak and Abanazer remained domatage of the backscene, indulging in some pantomime horse-play. The reason

32 See Speight, p. 225. In the Skelt sheet, the rock is shown as being about one-half the height of the backscene, sufficiently high for easy egress.
for this interplay between Kazrac and Abanazar becomes apparent when we examine Scene's stage directions for Act I, scene v:

**Scene V.** The Magic Cavern—a spiral stone staircase reaching to the top of the cavern, R.U.E. [i.e., Right Upper Entrance]—the wonderful lamp burning in an avenue, C.—over the avenue an emblematical figure of the Genius of the Ring—an avenue of trees, L., loaded with beautiful fruit. MUSIC.—Aladdin discovered descending the rude spiral steps, R.S.E. [i.e., Right Side Entrance]. (The italics are mine.)

Kazrac and Abanazar engage in their pantomimed "fight" at the conclusion of Act I, scene iv, to permit Aladdin sufficient time to cross from Left to Right and mount the stairway, preparatory to the shutter parting to "discover [Aladdin] descending the rude spiral steps." It would be completely illogical to suggest that Aladdin enter the cavern through a stage trap, for to do so would necessitate a subsequent cross beneath the stage, an ascension to stage level and a further ascension up the "rude spiral steps." We must therefore rule out the possibility of an exit through a trap, and conclude that in the Chestnut Street production, the flats in the first grooves, which comprised the "Mountian of Ukolpho, a Blasted Cedar at the foote," merely parted at the conclusion of Act I, scene iv, to discover Act I, scene v, the Cavern and Garden of the Lamp.

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33 Warren Scrapbook, Letters, Boston, 7 August, 1816.
Staging of Act I, scene v.--Concerning this scene Worroll wrote:

5th Scene--Cavern & Garden of the Lamp--I will send you a particular account of [it] before you can want it. I have not time now. Your brother leaves here in the morning.\(^3\)

Regrettably, the letter alluded to has not been preserved, nor is there any indication of the nature of this scene.

The Perkins and West prints of Act I, scene v, differ somewhat in detail, although in essence they are quite similar. The Perkins sheet, reflecting the typically unpolished technique of the early Juvenile Drama sheets, appears to represent the setting as nothing more than a backcloth on which the stairs have been painted. There are no wings with this sheet, and the total effectiveness of the plate is poor. The West sheet, while reflecting greater craftsmanship, reveals little more concerning the staging of the scene than does the Perkins sheet. Neither sheet provides sufficient data to relate them in any manner with the list of "pieces" supplied Warren by John Worroll, and it would be presuming too much to attempt to relate these Juvenile Drama sheets to the Chestnut Street production of Aladdin.

\textit{Act I, scene vi: A Conjectural Reconstruction.--}Worroll's only comment concerning this scene was "this you have got," and one suspects from the brevity of the remark that Mustapha's Cottage must

\(^3\)Warren Scrapbook, Letters, Boston, 16 August, 1816.
have been pulled from stock scenery. I have been unable to locate a sheet by Perkins for this setting; however, the West sheet is presented in the present study as Figure 97. With only minor modifications, the settings employed by the Chestnut Street Theatre for various cottage interior scenes—Act III, scene iii, of *The Will*, for example—might well have served to approximate this scene. In the absence of definite evidence linking the Juvenile Drama sheet in Figure 97 with the Chestnut Street production of *Aladdin*, however, it must be concluded that the Warren design may not have resembled the scene illustrated on the West sheet at all.

**Act I, Scene vii: A Conjectural Reconstruction.**—With this

35Stock settings of this type must have been in use in the New Theatre as early as 1795. The prompt book notation (Chestnut Street Theatre Prompt Books, The Library Company of Philadelphia) for *Next Door Neighbors*, first performed at the Chestnut Street house on 5 June, 1796, calls for the employment of "Mr. Gilpins' set, in the third groove, to represent 'An Apartment, which denotes the Poverty of the Inhabitants.'" Prompt notes in the prompt book for *The Will*, first produced at the New Theatre 24 January, 1798, call for "A Room in Copley's Cottage—Birds of Prey painted on the wall—A Recess, with several trusses of Straw in it—before Recess, an old green curtain, partly broken down—a table, 2 chairs—basket with apples—jug of ale, and small Mug."

36It must be noted, however, that the West sheet conforms in most details to the Scene description of the setting employed in the 1826 production at Drury Lane.
scene we are once again on firm ground. Worroll, in his letter of
August 7, 1816, wrote:

There is another pair of flats you can paint—Entrance
to the Baths. You must have a large pair of folding
doors in the Center—and on the R[ight] side a part of
the Wall opens in two collateral [sic] Grooves—when
you have made your drawing you can determine better
where it will answer. It is for Aladdin and Kazrac to
escape from the Guards. I have sent you a trifling
sketch of what it was in London. There is a Verandah
round it. The Walls are of brick, with the Garden
seen over them. You can paint the Baths very rich and
there will be no empropriety [sic] in gilding the
bases and Capitol of the columns.

To this letter is appended a note from William Warren to his brother:

Let Bouvard [one of the carpenters] prepare the flats
according to the sketch. You may have an pair altered
for the Bath as they were to be used in the second
G[rooves] but the mountain [i.e., the setting
described for Act I, scene iv] should be new.

The sketch to which Worroll and William Warren refer is
entered in the present study as Figure 98. The Perkins sheet for this
setting has not been located. There is virtually no similarity
between the sketch of Worroll's and the West sheet for the same scene.
However, the West Juvenile Drama sheet was issued to be used with
either Aladdin or The Forty Thieves, a not uncommon practice, and it
is quite possible that alterations were made to the original (Perkins)
sheets or to the scene design to accommodate the scenic requirements
of both Juvenile Dramas. In the absence of evidence to the contrary,
therefore, we must take Worroll at his word that the sketch in Figure 98, indeed, does represent the London production.

As illustrated in Figure 98, the Royal Bath appears to have been a constructed unit, having depth and thickness, rather than merely a painted backdrop. The columns and niches which flank the central doors appear to have depth, and the garden, seen over the "brick walls" of the Bath, might well be on a drop, well upstage of the Bath unit in the second grooves. This arrangement seems highly unlikely, however. Were the garden on a drop, separated from the flats in the second grooves, the brick walls at left and right could be no more than 6 feet to 7 feet in height, to permit the garden drop to be seen above them. They could not, therefore, come in contact with the upper grooves and would thus be unsupported from above. We must conclude, then, that the garden, like the Royal Bath, was painted directly onto the flats in the second grooves.

Undoubtedly there was some kind of backing unit behind (upstage of) the doors, however, for the doors play an important part in the scene and are opened several times. Soane's description of the scene (pp. 24-25) indicates the manner in which these doors were employed:

The Grand entrance to the Baths--Large folding doors, C.F. [i.e., in the center flats], opening inwards. . . . Aladdin shows himself from behind one of the folding doors of the Bath, watching with impatience to
see the Princess. . . . Kazrac, in a comical situation, peeps from behind the other.

Following a brief dialogue, "the Princess and Zobeide then pass through the folding doors, C.F." Since the area upstage of the central doors would be visible each time the doors were opened, it must be concluded that a backing unit--probably painted to resemble the interior of the Bath--was placed upstage of the doors. 37

"On the Right side a part of the Wall opens in two collateral Grooves," wrote Worroll; "it is for Aladdin and Kazrac to escape from the Guards." Again Scane supplies a detailed description of the action which requires this device:

[Having been discovered spying on the Princess]
Aladdin and Kazrac are surrounded on all sides, except on the Right. Aladdin perceives his danger, and draws forth the lamp from his bosom. [He incants the magic words] MUSIC--The wall is seen to divide, and Aladdin and Kazrac rush through the opening. Azzaak and the Guards are about to follow when the wall closes.
. . . The curtain falls on the picture. (The italics are mine.)

"The wall is seen to divide": Compare this direction with Worroll's instructions for the discovery of the Stone with the large ring in

37 For the Chestnut Street Theatre summer season, 1824, Durang (Vol. II, Series 2, Chapter 21, p. 2.) records the information that "Mrs. Darley had her hair half burnt off by catching fire, in being carried through the aperture of a scene." Clearly by 1824, backings were employed behind apertures, for the lamps which burned Mrs. Darley's hair could be nothing other than back-lights for a backing piece, placed just upstage of the scenic units which formed the aperture. This use of backing-lights in 1824 probably reflects the continuation of a long-established practice.
Act I, scene iv, which relate that "the Bushes . . . part and discover the Stone . . . the bushes that open were in two frames, and slid from the center in opposite directions in a groove." (The italics are mine.) Consider also Worroll's instructions to Henry Warren concerning the Royal Bath scene: "... a part of the wall opens in two collateral grooves." (The italics are mine.)

This device which permitted a wall to "open," providing a small passageway through the backscene for the appearance and disappearance of characters and objects, appears to have been the forerunner of the vampire trap.38 A cross section of a vampire trap is presented in the present study as Figure 99; the illustration is described below:

A very useful trap may be arranged as shown in Figure [99]. This is an upright pair of doors fixed to the back of a scene and firmly held in its place by a wooden batten at each side of the doors, the battens being held in position by four glorified screw-eyes, as used at most theatres for a like purpose, or stout and strong gimlets would answer. The dotted lines here shown are the outline of a tree that is painted upon the front of the scene, part of the trunk of the tree being painted on the doors, so as to disguise them as much as possible. Of course, the design of

38 The vampire trap was invented for the English Opera House production of The Vampire; or The Bride of Isle, 1820, according to J.R. Planché, The Recollections of J.R. Planché (London: Tinsley Brothers, 1882), p. 40. Judging from Soane's description, however, it may be inferred that this device had not found its way into common practice by 1826. In later versions of the script, however, this scene is described with the specific notation: "Exit Aladdin and Kazrac through vampire." (The italics are mine.)
Figure 99. Rear Elevation of a Vampire Trap. Rosie's Stage Effects, Figure 37.
the front of the scene may not, according to the plot of the play, be a tree, but perhaps a brick wall, a fountain, or an interior wall, and so on. The battens, $A$, are secured to the door framework, $B$. The doors are built up of light wooden battens, and covered with canvas in front. Attached to the framework, $B$, and the door battens, is a rubber spring, $C$, shown by the solid black lines. There are four springs, two for each door. Pieces of wood, $D$, are screwed to the door framework to act as buffers, so that the doors will not open inwards. These buffers must be well padded with pieces of thick felt or india rubber, that the door when closing upon them will be silent. When fixing the rubber springs they should be stretched somewhat, so that when in action they will have a fairly good tension. All being ready, the actor awaits his cue, then, very quickly, pushes the doors open, passes through, when the doors immediately close behind him. Well rehearsed, and quickly done, this should give an instantaneous and surprising effect. 39

Quite clearly the small panels in a flat, sliding "from the center in opposite directions in a groove," served the same function as the doors in Rose's description. Rubber springs were not employed

39Arthur Rose, *Stage Effects* (New York: E.P. Dutton & co., 1928), pp. 47-49. This description is quite late but, with variations, describes accurately the general principle of the vampire trap. One of the more common variants was a vertical trap (vampire trap) which resembled a vertical venetian blind. The over-lapping slats were fastened at the top and bottom by india-rubber strips. The actor, on cue, pushed through the strips of slatting, which parted for his passage, then sprang back into place. An earlier description of this trap is found in J.M. Noynet, *L'Envers du Théâtre*, 1st. edition, Bibliothèque des Merveilles series (Paris: Libraire Hachette et cie., 1873), Figure 43. The *vampire trap* is described as the *trappe anglaise*, and operates in precisely the manner that is illustrated by Rose. (Description taken from an unpublished translation of Noynet by Glen Wilson, Jr., [Columbus: 1956], pp. 131-132.)
in the Covent Garden, Chestnut Street, and Drury Lane productions of *Aladdin*, and the small panels in the backdrop flats which were drawn off to the sides by flat-hands undoubtedly had a somewhat slower action than the doors described by Rose. However, carefully masked from the view of the audience, disappearances through the type of vertical trap described by Worroll would be extremely effective. The blocking for the Drury Lane production, as described by Soane, indicates that the exit of Aladdin and Nazrac was covered by the mass of palace guards who were pursuing the adventurers. Such an arrangement of actors on the stage was undoubtedly designed to mask the "escape." It seems reasonable to conclude that the device for a "vanish" or "disappearance," as described by Worroll and employed in the Chestnut Street Theatre production of *Aladdin*, Act I, scene vii, was a standard English and American vertical trap.

Summary of Act I, Conjectural Reconstruction of *Aladdin*.—From the Juvenile Drama sheets of Perkins, Hebberd and West, from the Worroll letter, from the Chestnut Street Theatre libretto, and from the text of the Soane Drury Lane production, it has been possible to reconstruct much of the Chestnut Street Theatre production of *Aladdin*. No single source could have provided the necessary information, but a comparison and composite of the several sources has enabled us to (1) validate the source materials themselves, and (2) reconstruct with some assurance the Philadelphia production under Henry Warren and
Worroll. The similarity of the scenes supplied Warren by Worroll to corresponding scenes in the English productions of Aladdin, as determined by the Juvenile Drama sheets and the several descriptions of the play, makes inescapable the conclusion that the Chestnut Street production was strongly influenced by the Covent Garden production. An examination of Act II further supports this conclusion.

**Act II, Scene i and ii: A Conjectural Reconstruction of Aladdin.**—Act II, scene i, consisted of a repetition of the setting for Act I, scene vi, the cottage of Mustapha, Aladdin's mother. It may be assumed that the scenes were set without alteration.

From all indications, Act II, scene ii was the pièce de résistance of the Chestnut Street Aladdin. Neither the Perkins nor the West sheets for this scene have been available to me, but Worroll described the setting in great detail, and included in his letter of August 16, 1816, to Henry Warren, a detail of the back portion of the scene, presented in the present study as Figure 100. To Warren, Worroll wrote:

**Sc. 2 - Mountains and Waterfall, over them are built Chinese Bridges, across which the procession pass [sic]. This, with the least trouble, is capable of being made one of the richest scenes in the piece. I will give you a simple idea of it as it was done in London. I intend to omit the waterfalls; they will be very troublesome, and they will not improve the effect of the scene to warrant the expense. If you have got any already made to put it in the Arches of the front bridge it will have a good effect. You can with**
Figure 100. Setting for *Aladdin*, Act II, scene ii. Drawn by John Worroll, based on the Covent Garden production. Warren Scrapbook. CSUTC Film No. 1759%. 
propriety cover most of this scene with Dutch metal. It ought to be very rich and well lighted will have a beautiful effect. You may recollect what the first scene of *The Travellers* was: this subject is the same, and if you have not got the print to the before, I have sent it you. It will give you every assistance. You can have as many of the Bridges as your stage will admit, allowing the last for the procession to pass with perspective.

1st, and Epitome of the characters in small Profile figures, say about 1 foot 6 inches high. The next, about 3 feet [high], and then the real characters. Three sets of Bridges across, as the plan explains, will be sufficient. I expect this will be, in effect, as good a scene as any in it. But remember it must be very well lighted. Your brother thinks Mr. Wood has got the dresses for the Procession; if not, let me know, and I will send you a copy of them.

In his description to Henry Warren, Worroll has detailed only the backdrop-complex. In order to develop a reconstruction of the

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40This is one of numerous references to "Dutch metal" in the Warren letters. This thin metal leaf appears to have been a substance widely popular among designers of the period, both in America and in England, and was apparently inexpensive enough that its employment of large surfaces was feasible. Ralph Mayer (*The Artist's Handbook of Materials and Techniques* [New York: The Viking Press, 1957], p. 555), describes both the virtues and the drawbacks of this decorative material: "Imitation Leaf: These products perhaps should not be mentioned among materials used in permanent works of art, for they do not retain their original brilliant effects long enough to be considered suitable for that purpose. [Among these are] Bronze Leaf, Dutch metal, or metal leaf . . . names for imitation gold leaf in various shades. . . . They have a bright, shiny effect between that of mat and burnished gold, but become somewhat duller when varnished. . . . they must be shellacked, lacquered, or varnished to prevent rapid tarnishing. . . . Tinsel and glitter are in the same class [of rapidly tarnishing decoratives]—useless for any save the most temporary kind of decoration."
entire scene it is necessary to examine also the description of the action in the scene, as it appears in the Soane text: 41

Act II, Sc. 2--Scene II--A Verdant Plain on the River Bank--bridges with waterfalls rising one above the other C.

Tahi Tongluck, Harah Hanjon, and Court,
discovered in Tents, R.--the Cham receiving petitions,
the Courtiers offering presents, and the Grand Vizier kneeling to the Cham.

MUSIC - The officer beckons to Mustapha and Kazrac, who cross the bridges from L.--after each comic action they advance to the Cham--Mustapha takes off the napkin, places the jewels at his feet, and they prostrate themselves before him. 42

Distant Music--Tongluck and the Court range, R.
--The grand procession prepared for Aladdin by the slaves of the lamp passes over the bridge from L. to R., and descend, C., the slaves bearing on their heads.

41 It is interesting to note that Worroll, in describing the scene, wrote: "Sc. 2--Mountains and Waterfall, over them are built Chinese Bridges, across which the procession pass." The description of the scene which was published in the Chestnut Street libretto read: "Mountains and Waterfalls; over them are built Chinese Bridges, across which pass the Grand Procession prepared for Aladdin by the Genie of the Lamp."

42 Although there are numerous references to the bridges in the background of this scene, the reference cited here of Mustapha and Kazrac, who "cross the bridges from L.," is the only such reference which suggests that more than a single practical bridge was employed in this scene. In every other instance, directions read ". . . from the bridge," etc. Only the procession employs "bridges," and the direction for Mustapha and Kazrac is, I believe, a typographical error.
all kinds of rich presents in gold and silver—they range, L.—Enter Aladdin, from the bridge, in a costly Chinese palanquin, born by four Aethiopians—Tongluck, the Court, and Mastropha are all astonished at the magnificence of the presents.

. . . . . . . . . . . . . . . . . . . . . .

MUSIC—The Cham waves his hand—Aladdin gives a signal to the slaves—they all rise, place the presents on their heads, and excurt over the bridge in procession in the following order . .

It seems quite apparent, from the description of action during the scene, and from the number of people involved in this scene, that the backscene-complex was set as far upstage as was practical. If, as Worroll suggests, this setting resembled the opening scene of The Travellers, the wings employed for the scene must have been garden wings. Worroll's scenery list includes two garden settings: (1) "Garden Wings—8 pieces," and (2) "Violanthis Garden—6 pieces." That a distinction is made between "Garden" and "Garden wings" suggests that the "Garden" consisted of wings and a backscene, while "Garden wings" consisted of wings only. Based on this, it is my belief that the "Garden Wings—8 pieces," rather than the "Violanthis Garden" were employed in conjunction with the backscene-complex described by Worroll.

With the wings set in four grooves, an arrangement which would accommodate the "8 pieces," the first bridge would have been at least
14 feet upstage of the proscenium. This depth upstage of the proscenium, plus the depth of the forestage downstage of the proscenium, would have provided ample playing space for the scene as it is described by Soane.

What the precise arrangement of the downstage area was like at the Chestnut Street Theatre cannot be determined, beyond noting the use of the "Garden Wings." Whether or not a tent was employed in this scene, as it was employed in the Drury Lane production in 1826, is problematical. Tents were certainly used on the stage of the Chestnut Street house, as they were employed in English productions, but there is not sufficient information available to determine the precise disposition of the downstage scenic elements in the Philadelphia production of Aladdin.

However, of the backdrop-complex there is much to be said. Concerning the entrance of Aladdin into Act II, scene ii, Soane wrote:

The grand procession prepared for Aladdin by the slaves of the lamp passes over the bridge from L. to R., and descend, C. . . .

But for the reversed direction of passage, the Chestnut Street production seems to have employed an arrangement similar to that described by Soane. Worroll's sketch (Fig. 100) clearly indicates the elevated downstage bridge, with steps fitted to it to provide access

43 This distance is derived from my conjectural reconstruction of the Chestnut Street Theatre, presented in Appendix C.
between the stage and the elevated bridge. Access to this bridge from offstage was from stage right only; the two bridges upstage of the practical bridge appear to have been ground rows.

The precise nature of the waterfalls cannot be determined with certainty. That Worroll wrote "I intend to omit the waterfalls; they will be very troublesome, and they will not improve the effect of the scene to warrant the expense," suggests that they were not merely painted, but were rather in some way, practical. Perhaps they employed some method of representing moving water such as Sabbattini described as early as 1638. We cannot know. That the waterfalls filled the area beneath the bridges of the upstage ground rows can be stated with some certainty, however. This conclusion is based on the requirements for the employment of "epitomes" in the furthest upstage area.

"An Epitome of the characters"—that is, an exact representation in miniature of each of the characters in the procession—"in small profile figures, say about 1 foot 6 inches high," was made to cross the furthest upstage bridge. These figures, dressed exactly like the live actors, but only 18 inches in height, were probably cut from cardboard, or some similar material and, like the shadow puppets of Turkey and the Near-East, were mounted on sticks, to be moved by operators from below, hidden by the bridge and waterfall ground rows. This procession of epitomes, moving from stage
right to stage left, was spaced out across the entire span of the stage, on the furthest upstage bridge.

As soon as the leading figures passed from the view of the audience, at stage left, new cut-outs of these figures, "about 3 feet" high, appeared behind the center bridge ground row, passing from stage left to stage right. Finally, as the leading figures in the cut-out procession on the center bridge passed from view at stage right, the real actors made their appearance, crossing on the down stage bridge from stage right to center stage, then down the center steps to the stage proper. Skillfully ligated, with the "puppets" --or epitomes--skillfully managed from behind the ground rows, the effect would be that of a seemingly endless serpentine procession, viewed "with perspective," i.e., with the upstage line of figures appearing to be at a great distance, the figures at the center bridge appearing to be much closer, and the live actors appearing quite near at hand, in the foreground of the backscene-complex.

That this scene might be "in effect, as good a scene as any" in Aladdin was due not a little to the effectiveness of the puppets employed in the backscene area. Effects achieved by the employment of puppets had long been known by English theatre-goers. As early as 1775, de Loutherbourg employed puppets on the London stage. The appearance of puppets in the naval regatta of Queen Mab was considered
"the completest piece of mechanism seen in a theatre in several years.

. . . the figures moving so critically exact to the music, must
naturally excite admiration."  

Puppets were known in America at least as early as 1786-87, 
when in Philadelphia,

The first representation of The Poor Soldier . . . was
made through the medium of puppets at a house in
Second street, between Union and Pine streets, near
the new market, which building is now a clothing
store. The puppets were made by John Durang [the
actor]. The dialogue and songs of the opera were
conducted by some of the actors and actresses formerly
belonging to the Southwark company. The puppet
theatre . . . was crowded every night at fifty cents a
head.  

Puppets were in use at the Chestnut Street Theatre as early as
1802, Francis, for his benefit in that year,

. . . chose the tragedy of The Distrest Mother for the
first piece, and then made the following announcement:
"For the first time in America, a representation of
the grand spectacle, the procession in honor of the
ratification of the Constitution of the United States
of America, July 4, 1788. . . The stage displays a view
of Market Street in the distance, the river Delaware,
and shipping. . . . The scenery and machinery by
Messrs. Holland, Milbourne and Robinson [Robbins?],
assisted by Mr. Hallem and others. The procession

44 Gazetteer, November 13, 1775.

45 Durang, Vol. 1, Chapter XIII, p. 25. Shows of this sort were
very popular during this period following the War of Independence,
since legitimate theatrical productions were still proscribed. It is
entirely probable, of course, that puppets were in use in America
considerably before this time, although sources like Durang fail to
mention them in connection with theatrical entertainments.
is chef d'ouvre of stage mechanism and effect."

They [the audience] expected to see an immense
number of supermagnaneries with the cars, banners,
platforms, temples, etc., of full size. Their
disappointment at witnessing a procession of figures,
two feet high, may be more easily imagined than
described.46 (The italics are mine.)

There can be little doubt, in the face of this and other
evidence, that Worroll and Warren were following steadfastly in the
English tradition when they employed "an Epitome of the characters" in
their productions of Aladdin. While these "puppets" were certainly
less sophisticated than de Loutherbourg's, they were merely "small
Profile figures," probably cut from cardboard; their employment by
the American designers was assuredly in the same manner and for the
same purpose, as were those of the London designer.

Act II, Scene iii: A Conjectural Reconstruction.--This scene
is the Tartarian Caravansera. It receives no further description in
either the Chestnut Street Theatre libretto or the Soane text, and of
it Worroll says only "this I understand you have painted." I have
been unable to locate Juvenile Drama sheets for this scene from the
period 1813 to 1826, and later sheets, such as those of Webb and
Skelt, illustrate a scene so different in style from the Covent Garden
production of 1813 that it is impossible to develop even the most
tenuous analogy between the later sheets and the early production.

Act II, Scenes iv, v, vi, and vii: A Conjectural Reconstruction.--It is necessary to cite both Worroll's comments on these scenes and the sequence of these scenes as they appeared in the London production of Aladdin, for the New England designer departed somewhat from the production at this point, and it is with some difficulty that we follow the intent of his instructions to Henry Warren. The sequence in the London (Covent Garden) production was as follows:

Act II, scene iv--The Exterior of Aladdin's Palace, occupying the whole of the space from R. to L. [This scene, according to Worroll, consisted of "a pair of flats in the first groove."]

Act II, scene v--Kazrac's Chamber, a door, R.C.F.--a recess, with a couch, L.C.F. [This scene must have been set upstage of the first grooves, but was probably no deeper than the second grooves.]

Act II, scene vi--The Exterior of Aladdin's Palace, [obviously a repeat of Act II, scene iv. During the course of this scene, the Palace flew off, revealing behind it a barren plain and distant mountains.

Worroll's departures from the London scheme were outlined in his letter of 16 August, 1616, to Henry Warren, and consisted of the following:

4th--This scene in London was the Exterior of Aladdin's Palace, a pair of flats in the 1st G[rooves]. My idea is that it will detract from the effect of the Flying Palace, and I have determined to paint a Chamber or Hall in Aladdin's Palace.
5th—Kazrac's Chamber—discovered. This may be any plain chamber. If you newly paint one it ought to be very simple, what you might do in the course of a day.

The next scene in the Manuscript is the Flying Palace, but it will be necessary to shut on Kazrac's Chamber and discover the Palace, which will be impossible as it is marked in the Manuscript. Therefore I shall change it to the

6th—Hall that discovered Kazrac's Chamber. By that means shall be able to discover

7th—Aladdin's Flying Palace which is carried through the Air by the Agents of the Lamp. It will be much better in effect. A repetition of the same subject will always injure one or the other. (Will send you a sketch with the particular manner I intend to manage the Flying Palace when I send the other—I have explained to your brother how I intend to do it.)

The need for the sequence of scenes which Worroll outlines seems to pivot on the esthetic belief of the New England scene designer that "a repetition of the same subject will always injure one or the other." (The italics are mine.) The phrase "the same subject" carries two implications: (1) that the Exterior of Aladdin's Palace, employed at Covent Garden in scene iv and vi of Act II, represented essentially the same scene as did the Flying Palace, and, (2) that the Exterior of Aladdin's Palace, which according to Worroll consisted of "a pair of flats in the first groove," was drawn off to reveal the Flying Palace effect.

A brief synopsis of the relevant scenes will familiarize the reader with the pertinent details of this sequence of scenes. In
Act II, scene v of the London production of *Aladdin*, Kazrac is discovered in his chamber, asleep.\(^{47}\) In an elaborate pantomime Abanazar steals the Magic Lamp and exits, as Kazrac, awakened from his sleep, rages about the room in search of the Lamp. The scene closes on Kazrac, and we are once again in one, before the Palace of Aladdin. Abanazar, followed by the Princess and her attendant, enters the scene. Abanazar rubs the Magic Lamp and calls out the order "To Africa." "The Palace rises and appears to fly through the air, supported on the shoulders of the Slaves of the Lamp, leaving only a barren plain and the distant hills."\(^{48}\) The Cham and his attendants rush onto the stage in time to witness the departure of the Flying Palace. The scene changes (to II, vii), "A Forest . . . enter Aladdin and Huntsmen."\(^{49}\)

From the data available we may only speculate upon the sequence of events in the Covent Garden production of *Aladdin*. Apparently at the conclusion of the scene in Kazrac's chamber, the shutters which represented the exterior of Aladdin's Palace, placed in the first grooves, closed on Kazrac. Abanazar entered in one and, after a brief pantomime with the Princess, cried out "To Africa." The

\(^{47}\)Act II, scene iv, it will be remembered, is played in one, before the Exterior of Aladdin's Palace.


Palace exterior shutters, in one, then drew to discover at a distance the exterior of Aladdin's Palace, which immediately "rises and appears to fly through the air." Accompanied by appropriate music and with suitable lighting effects, this sequence would be reasonably effective. However, we must agree with Worroll's objections to the effect. The repetition of scenes—the Palace exterior in one, and the Palace exterior at a greater distance—would indeed lessen the impact of both settings.

To combat the need for the repetition of scenes, Worroll introduced an interior setting, a Hall in Aladdin's Palace, and probably wrote in some additional pantomime. The scenery list appended to Worroll's letter to Henry Warren of August 16, includes a "Trophy Hall - 7 pieces." It is highly unlikely, however, that this setting was employed in the Philadelphia production of Aladdin. Two factors mitigate against the use of this scene.

Kazrac's Chamber (Act II, scene v) is discovered. Therefore, a backscene is withdrawn to reveal Kazrac's apartment. If the "Trophy Hall - 7 pieces" were the scene employed in the New Theatre, Kazrac's Chamber, in order to be discovered, would have had to be set in or upstage of the fourth grooves.\textsuperscript{50} Set in the fourth groove, Kazrac's Chamber would, perforce, have consisted of a minimum of three pairs of

\textsuperscript{50}The seven pieces of the Trophy Hall, consisting of three pairs of wings and a single-piece backscene, would occupy four grooves.
wings and a backdrop, a relatively large setting. Yet Worrell indicates in his letter that "Kazrac's Chamber" should be a "plain chamber," that a designer might "do in the course of a day."

Certainly a setting consisting of seven pieces does not fit this description. Furthermore, it is illogical that the room of a servant should be of such great size, of the same size, in fact, as the Trophy Hall.

Moreover, were the seven-piece Trophy Hall setting employed, the Flying Palace mechanism would have had to be set upstage of the fourth groove if it were to be discovered. A letter from William Warren, written to Henry in regard to the Flying Palace effect, suggests that the mechanism was quite extensive in size and apparently well conceived. There was no evident need to hide this effect in the upstage area, as there frequently was with other devices. It may be concluded, therefore, that the "Trophy Hall - 7 pieces" was not employed in the Aladdin production at the Chestnut Street establishment, and that in all likelihood the Chamber or Hall setting for Act II, scenes iv and vi, was set in the first grooves.

Conjecturally, the sequence of scene changes in the Warren and Wood production of Aladdin was as follows: at the conclusion of scene iv, the shutters on which the Hall was painted drew to discover

51Worrell's letter makes it quite clear that this effect is to be discovered by the drawing off of the Hall.
Kazrac's Chamber, with wings in the first grooves, a backscene in the second. At the conclusion of this scene (Act II, scene v), the hall shutters closed on Kazrac's Chamber, and Abanazar and the Princess came on in one, playing an improvised pantomime while the mechanism for the Flying Palace—probably in the area of the third grooves, so that it might have been set in place during the Kazrac scene (Act II, scene v)—was put into final readiness. The pantomime in Act II, scene vi concluded, the hall backscene drew to discover the Flying Palace (Act II, scene vii), which flew off on Abanazar's command, discovering the backscene of The Forest or Desert Plain (Act II, scene viii).

A brief comment is in order concerning the nature of the Flying Palace mechanism. An undated letter from William Warren to Henry contains the enigmatic passage:

When the frames are ready for the flying palace you must jaw them in the center so that they will fold together and pop [drop?] through the square that you spoke of. Let then a strip be tacked to the back which will bring them into their proper form again. This is the way which the car in Cinderella and other large frames have been managed.

Confronted with this tantalizing clue into the mechanism of the

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52 This letter is postmarked "Baltimore, October 30th," and is undoubtedly from the year 1816.
effect, one immediately rushes to examine the text of *Cinderella*, there to learn only that:

Venus and her train enter into her Bower which is enveloped in Clouds which ascend with them. The scene changing at the instant.

Of the frames for Aladdin's *Flying Palace* jawed, or hinged, in the center, nothing is to be learned. Contemporary accounts of the London and Philadelphia productions of *Cinderella* offer only little assistance. A critic for the *Theatrical Censor*, calling himself "Nicholas Bottom," reported of the January 13, 1806 performance of *Cinderella* at the Chestnut Street Theatre that he "felt himself very uncomfortable on seeing several poor infants suspended by ropes, in attitudes that made him suppose that they had been placed there by punishment." Thus were the flying effects at the New Theatre brushed aside by a capricious critic. However, a more kindly critic, writing for the same journal, wrote that "the clouds in which Hymen and the cupids ascend and descend have a very fine effect, bestowing unqualified praise on the talents of the painter."

From these accounts it is evident that flying mechanisms were

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53 A handwritten version of this "Grand Pantomime," submitted to the Lord Chamberlain by "W. Bannister, Theatre Royal, Drury Lane, December 17th, 1803," is in the possession of the Huntington Library. (OSUTC Film No. 309.)

54 Quoted by James, *Cradle of Culture*, p. 77.

55 Quoted by James, *Cradle of Culture*, p. 81.
employed throughout the opening and closing of the piece and that, viewed by a tolerant eye, they were relatively effective devices. From William Warren's letter we may surmise that Aladdin's Flying Palace did, in fact, ascend into the flys, like the Bower of Venus, but in the absence of additional data, it is impossible to determine more concerning the mechanics of this disappearance.

The Concluding Scenes of the Play: A Conjectural Reconstruction. --Following the departure for Africa of the Flying Palace, the scene changes to a Forest, where Aladdin and his Huntsmen are at sport. The Huntsmen depart, and Aladdin is alone when Kazrac enters and tells him, in pantomime, of the theft of the Magic Lamp and the spiriting away of the Princess by Abanazar. The soldiers of the Cham, ordered to arrest Aladdin, enter, and a fight ensues. Just when it appears that Aladdin will be taken prisoner, Kazrac remembers that Aladdin has the Magic Ring. Aladdin rubs the Ring, and the Genie of the Ring appears. Aladdin, Kazrac and the Genie exit, and are seen "in a cloud . . . born through the air, preceded by the Genii of the Ring." 56

An excellent drawing of this device is included in Worroll's

56 Chestnut Street Theatre, Aladdin libretto, Act II, scene viii. In the Soane text (Act II, scene vii) the directions read ". . . traverse the air in a beautiful car, with the Genii of the Ring."
Figure 101. "Aladdin drawn off in a Car."

letter of 16 August, 1816, to Henry Warren, and is presented in this
study as Figure 101. Of this effect, Worroll wrote:

*Aladdin & Kazrac in a Cloud* in a Cloud, an [sic] born through
the Air, preceded by the Genie of the Ring. The
Figures [of Aladdin, Kazrac] the Genie and the Car
must be painted profile and cross from OP to PS
[i.e., from stage left to stage right]. The car is
a circle, with the Clouds below, as in other cars.
The Figure [of the Genie] before it. I expect you
have machinery in the house to work them across.
The lines must be small. There is no danger of their
being seen as you can have it go across as far back
as you please.

Figure 101 clearly indicates the car, "a circle, with the
Clouds below," in which ride Aladdin and Kazrac—cut-out profile
figures—preceded by the Genie. In this drawing, the operating lines
of the device are indicated, as are the sheaves which run on these
lines. From the drawing it may be determined that the effect
consisted of two pieces, each operated independently of the other,
allowing for maximum flexibility within the effect. That Worroll
suggests "you can have it [the flying cloud effect] go across as far
back as you please," implies that this scene was probably set quite
deep, an implication which is further supported by the need for
sufficient room to stage the flight which takes place in the scene.

Worroll's scene-list indicates a setting of "Mountainous Country - 12
pieces." A scene of this description is suggested by the background
of the sketch in Figure 101 and, since it would be set in the fifth
grooves, admits readily to the action of the scene.
As the car vanishes stage right, the scene closes to "A splendid Saloon - 1 cloth, 2 wings. This," wrote Worroll, "is what I meant would answer for the 9th scene." This scene, set with wings in the first grooves and a backscene drop at the second groove-line, would necessitate the removal of the "Mountainous Country" wings in the first and second grooves, but would permit the balance of the scenery for "Mountainous Country" to remain in place. At the conclusion of this scene in the "Splendid Saloon" (Act II, scene ix), the drop was flown up, the "Mountainous Country" was played in the "Mountainous Country" setting. Into the "Mountainous Country" setting, as Act II, scene xi of the Chestnut Street Theatre production, "the Palace of Aladdin descends, bringing back Aladdin, the Princess, and Zodyad; a general joy prevails, and the people join in loud Huzzas and Acclamations."

Conclusions.--In reconstructing Act I, scene i, of Cherry's Travellers, as in reconstructing the Chestnut Street Theatre production of Aladdin, several general trends of American production practice become salient. In both Travellers and Aladdin, for example, printed directions for staging, taken from the London


58 In the Scene text, this scene was played in the setting for Act II, scene vi, the "barren plain" which remained on stage after the Flying Palace vanished.
productions of the plays, appear to have been followed closely. This practice is entirely consistent with other productions at the Chestnut Street playhouse, as indicated in the twenty-one prompt books which have survived, and appears to have been entirely consistent with general American practice.

Except for the practice of flying backscenes, rather than lowering them through the stage floor, there appears to have been little deviation from English practice in the actual production techniques employed. Spelled out clearly in the notes, sketches, and stage directions of Aladdin, these production techniques and practices consisted of nothing more than the standard handling of wings, backscenes, set pieces, traps—both in the floor and in the backscene—and borders. As in the English theatres of the period, the Chestnut Street Theatre employed grooves, divided backscenes or shutters, and drops.

Scene-to-scene transitions appear similar in both England and America—the practice of moving from a shallow scene, to a deep scene, and back to a shallow scene. Where changes in the order of scenes occurred or where settings in the Chestnut Street Theatre were altered from those employed in the London productions of a given work, treatment of scene changes and scene to scene flow appears to have undergone little change.

From an examination of the Chestnut Street Theatre production
of *Aladdin*, there can be little doubt that this piece, as mounted at the Chestnut Street Theatre by Warren, was strongly influenced by the English theatre of the period. This thesis is born out by the numerous references to "the London production" in Worroll's letter of instructions to Henry Warren, and by the inclusion of drawings from the London production in the Worroll letter, drawings which Warren presumably copied or altered for his own use. Materials in the Warren Scrapbook and notations and sketches in the prompt books suggest that this influence was by no means limited to this single production at the theatre in Philadelphia, but rather pervaded all of that theatre's productions.
CHAPTER VII

CONCLUSIONS

In concluding our examination of the Chestnut Street Theatre specifically, and the American theatre of the Georgian period generally, it seems proper to consider the present study in the context of two questions. What might we have expected to find in the course of an examination of staging practice in America during the period 1794-1820? In what way has this study dealt differently with American theatrical history than have other studies dealing with the same or similar periods of time?

Theatrical activity in the colonies which were to become the United States of America had flourished in a modest way for nearly fifty years before Wignell and Reinagle opened the doors of their playhouse on Chestnut Street. Surely, during so long a period we might expect to find various departures and deviations from the practices of England, the mother country. By the opening of the Chestnut Street Theatre in 1794—forty-two years after Hallam’s troupe produced the first professional theatrical production in America, on September 5, 1752—we might reasonably expect to find the
establishment of uniquely American practices in the arts of scene painting, staging, and building and architectural design. Yet such departures are not to be found or, if found, are generally too enfeebled or too highly derivative to be called new.

The strongly English orientation of theatrical activity in America has long been assumed. The present study has gone beyond assumption, however, and has examined in detail, with considerably more extensive evidence at its disposal than has hitherto been available, the precise nature of those English influences. Inquiry has been made into the areas of architecture, auditorium arrangement, stage and stage machinery, scene painters and designers, and finally, two specific productions on the stage of the Chestnut Street Theatre.

Each of these areas of consideration has been defined as it relates specifically to the Chestnut Street Theatre, and the relationship of each area to the corresponding English area has been examined and tested. In virtually every instance, it has been demonstrated that an undeniable parallel existed between English and American practice, as exemplified by the Chestnut Street Theatre.

Architecturally, the Chestnut Street playhouse appears to have been a composite of Georgian architectural motifs. It appears highly unlikely that any single source served as a model for this structure. Durang's statement that the Chestnut Street Theatre was "a perfect model of the Bath Theatre, in England" has been disproved, as has
McNamara's contention that the Limerick Theatre, Limerick, Ireland, might have inspired John Inigo Richards, the "architect" for the theatre on Chestnut Street. The thoroughly Georgian quality of the building has been demonstrated, and a number of examples have been cited to define the various Georgian elements of the building as they appear in English structures of the same period.

Evidence from the Warren Scrapbook, supported by the memoirs of John Bernard, the English and American actor-manager, indicates that the model for the interior arrangement of the Chestnut Street Theatre auditorium was the Covent Garden theatre, as remodelled by John Inigo Richards in 1734. The auditoriums of the two theatres appear to have been practically identical in size and extremely similar in arrangement, excepting only the peculiar arrangement of boxes at the rear of the Chestnut Street house and the arrangement of the Chestnut Street gallery. Comparison of the Chestnut Street auditorium with auditoriums of London and English provincial theatres of corresponding size indicates clearly the extent to which the auditorium of the Philadelphia theatre was derivative.

Lighting arrangements in the auditorium of the Chestnut Street house, consisting of candle and oil lamps which were suspended about the auditorium on "S"-shaped brackets, paralleled English practice. Even the introduction of gas to the auditorium followed, rather than preceded the English use of gas, for not until after both Covent
Garden and Drury Lane had been successfully lighted did Warren and Wood make their move to incorporate the new illuminant into their theatres.

Like the auditorium and the building which housed it, the stage and stage machinery of the New Theatre in Philadelphia reflected an English heritage. In the area behind the green baize curtain occurred the greatest departure from the English tradition. While fully equipped with traps and the various machines requisite to the operation of curtains, roller drops, and flying devices, the Chestnut Street Theatre appears not to have employed the stage-floor openings--sloats--which so characterized the stages of the major contemporary London theatres. Moreover, on the stage of the theatre in Philadelphia we find what may well be a distinctly American innovation, a backdrop which, like modern scenery, was flown directly into the flys, in a single unrolled piece. While little information is to be found concerning the use of this method of moving backscenes at the Chestnut Street Theatre, data from the Richmond, Virginia, theatre indicates that as early as 1811, thirty-one pieces of flown scenery hung in the flys of that theatre. William Warren's sketch of such a flown backdrop firmly establishes the innovation at the Chestnut Street Theatre, probably about 1817, and the "rule of probability" suggests that if the machinery for operating such a
device were available, the use of the device at the Chestnut Street establishment was probably general and recurring.

Evidence from the letters of John Worroll to Henry Warren indicates that at the Chestnut Street playhouse, as in the theatres of London, rigging existed for flying effects of considerable magnitude. Not only could cut-out "cars," clouds and bowers be made to fly across the stage, but entire scenic units, as well as actors, could be flown out of sight.

Traps were widely employed in the Chestnut Street Theatre. As on the English stage of the period, these traps consisted of openings in the stage floor, permitting access to the area beneath the stage for both actors and scenic pieces. Furthermore, vertical traps--early versions of the "vampire trap"--were employed on the Philadelphia stage. These traps had widespread precedence in the English theatre.

Sufficient data exists to trace the direct influence of English practice on American production. English scenery, painted for the London stage, was brought to America by Hallam in the 1750's. John Inigo Richards, and possibly other London painters, supplied scenery for Wignell's new theatre in 1793. It seems highly likely, moreover, that some or all of the scenery and machinery from Lord Barrymore's private theatre at Wargrave-on-Thames was purchased by Wignell, and was transported to America for use in the Chestnut Street Theatre. In the face of such knowledge, it can only be concluded that
with such a massive importation of English scenes and machines in the early days of American theatrical activity, the Chestnut Street Theatre specifically, and other theatres generally must, perforce, have been equipped to make use of these scenes and machines.

It must be concluded, therefore, that the stage of the Chestnut Street Theatre, like the building and auditorium with which it was conjoined, was essentially "English," i.e., founded upon English tenets of architectural esthetics and theatrical practice. The great similarity between physical structures in the English and American theatres of this period--the building, auditorium, stage and stage machinery--would, of itself, lead to the conclusion that production practice at the Chestnut Street Theatre could be expected to be derived from, and parallel with, practice on the English stage. Such a conclusion finds further support in an analysis of production practice in the Philadelphia theatre.

Textual descriptions of English productions were followed religiously by the managements of the Chestnut Street house. Descriptions of staging, scenery, and stage business were frequently underlined, without alteration, in the English acting editions which comprise the Chestnut Street prompt books. Moreover, drawings, Juvenile Drama sheets, and engravings of English and Continental productions, clearly indicate the dependency upon the English stage of American managers. Until well into the first quarter of the
nineteenth century, American audiences had an extremely low tolerance for native plays, and although local scenes were introduced into the scenery of Chestnut Street Theatre productions from time to time, as they were also introduced onto the stages of other American theatres, the English, French, and German plays formed the backbone of production fare at the Chestnut Street Theatre, and, indeed, at most of the theatrical centers throughout America during this period.

Finally, it has been demonstrated that the "stage picture" --i.e., the appearance of the stage specifically created by the scenic designer and painter--was largely English, at least through 1815, and probably considerably beyond. Milbourne and Holland, who formed the foundation of the art of scene painting in America, were both employed at the Chestnut Street Theatre by Wignell. Milbourne, characterized as "the first eminent [scene] painter that ... crossed the Atlantic," was employed by Wignell to prepare not only the scenery, but the auditorium of the new theatre as well for its grand opening. In undertaking this task, Milbourne brought to the American theatre a tradition of English refinement, both in décor and in scenic effect.

Although no English painter after Holland appears to have worked at the first Chestnut Street Theatre, Henry Reinagle, Luke Robbins, and Henry Warren, all of whom were trained to some degree by Holland and influenced by the Milbourne tradition of excellence, carried on the English tradition. Except for a few designs by Warren,
none of the scene design work of these painters has survived the years. From the nontheatrical canvases of these men, however, it has been possible to infer their scene design style. In each instance, this style has been found to be in the tradition of John Inigo Richards and William Capon.

If a generalization were to be developed from this case study of the Chestnut Street Theatre, it would be that based on the fragmentary evidence available, theatrical practice throughout the new republic of America appears to have followed closely the pattern which emerged at the Chestnut Street Theatre. Ludlow and Caldwell in the deep South, Placide in Virginia, Stephen Price in New York, and Powell in Boston, all benefited from the legacy of the English stage. While American drama began to emerge shortly after the conclusion of the War of Independence, stage practice appears to have remained in the English tradition throughout the nineteenth century. The Chestnut Street Theatre introduced to the United States a refinement, a nicety, an attention to detail hitherto unknown on the stages of the new country. But the proprietors, for all their efforts, created not an American theatre from their English heritage, but rather created an English theatre in America.
APPENDIX A

Inventories of the Alexandria, Virginia and Washington, D.C., Theatres

The inventories presented in this appendix have been taken from the Account Book of William Wood and are quoted, with slight re-arrangement, as they appear in the Account Book. The inventories are presented in parallel lists to enable the reader to visualize the similarities and differences in the two inventories. Where relevant, the components of each scene are entered within parentheses following the initial entry.

The Alexandria inventory was taken in 1821, and represents the contents of Caldwell's theatre at Alexandria. The Washington inventory was prepared in 1824, and reflects both the contents of Caldwell's theatre and the additional stock scenes and set pieces added by the Warren and Wood company in Washington.

Alexandria, 1821

1. Chamber - Green
   Chamber - Green) (2 sets of wings)
   Chamber - Blue

   Green Chamber
   Door [Chamber] Green (2 pr. Green chamber wings)

2. Blue Chamber (3 pr. Blue chamber wings)

Washington, D.C., 1824
Alexandria, 1821

3. 1 Prison and Wings (Prison side piece - 1 set of wings)

4. 2 Palaces (1 set of wings)

5. 1 Street and Wings (1 set of Wings - on back Distant Camp)

6. 1 Cut Wood
   1 Front Wood
   1 Back Wood

7. 1 Kitchen (1 set of Wings)

8. 1 Cave (1 set of wings)

9. 1 Cottage

10. 1 Horizon

11. Pantaloon's House

12. 1 Set of Rocks

13. 1 Set of smooth and rough water sunch [sic]

14. House piece inside with fireplace
    Side Piece for Chimney

15. General's Tent

16. Juliet's Tomb

17. Capulet's Tomb

18. Rosina - wheat field

19. Set Piece - distant country

Washington, D.C., 1824

Prison (2 pr. Prison wings)

Drapery Palace (3 pr. Drapery wings)

Street (2 pr. Street wings)

Cut Wood

Front Wood (3 pr. Wood wings)

Back Wood

Kitchen

1 cottage

1 Horizon

Pant's [Pantaloon's?] House

5 Rock Pieces

3 Rows smooth water

1 Piece for fireplace

1 Tent

Juliet's Balcony

Capulet's Tomb

Wheat field

1 low row of set country
<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>4 Vases of flowers</td>
<td>Alexandria, 1821</td>
</tr>
<tr>
<td>21</td>
<td>Pavilion for Therese</td>
<td>Pavilion (Therese)</td>
</tr>
<tr>
<td>22</td>
<td>Hot house for W. to get married</td>
<td>1 piece for slop [sic] - query Hot? house</td>
</tr>
<tr>
<td>23</td>
<td>3 Library Pieces</td>
<td>3 pieces for library</td>
</tr>
<tr>
<td>24</td>
<td>Bridge <em>(Heart of Midlothian)</em></td>
<td>Set Bridge</td>
</tr>
<tr>
<td>25</td>
<td>House piece R.H. Ditto L.H.</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>1 Windmill and set piece</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Outside of Nadge's cottage</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Inside of Nadge's cottage</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Set Camp</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Gothic New Laye [sic] Doors &amp; 1st [sic]</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>2 shop pieces</td>
<td></td>
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<tr>
<td>32</td>
<td>Set piece - Distant University of Paris</td>
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</tr>
<tr>
<td>33</td>
<td>2 (?) Plain Gothic on back of [sic]</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Green Curtain</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Drop Cloth</td>
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</tr>
<tr>
<td>36</td>
<td>Tree borders</td>
<td></td>
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<tr>
<td>37</td>
<td>2 pr. Venta [sic] wings</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>2 pr. Rocks wings</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>2 pr. Street wings</td>
<td></td>
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<tr>
<td>Alexandria, 1821</td>
<td>Washington, D.C., 1824</td>
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<td>40.</td>
<td>2 pr. tormentors wings</td>
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<td>41.</td>
<td>1 stone wall</td>
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<tr>
<td>42.</td>
<td>2 Chamber pieces</td>
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<tr>
<td>43.</td>
<td>1 screen</td>
<td></td>
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<tr>
<td>44.</td>
<td>3 Platforms</td>
<td></td>
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<tr>
<td>45.</td>
<td>5 Trussils [sic]</td>
<td></td>
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<tr>
<td>46.</td>
<td>2 pr. 5' steps</td>
<td></td>
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<tr>
<td>47.</td>
<td>2 Trees</td>
<td></td>
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<tr>
<td>48.</td>
<td>5 Tower pieces</td>
<td></td>
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<tr>
<td>49.</td>
<td>8 Pictures</td>
<td></td>
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<tr>
<td>50.</td>
<td>1 Piece sheet iron</td>
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<tr>
<td>51.</td>
<td>1 Bed stead</td>
<td></td>
</tr>
<tr>
<td>52.</td>
<td>1 Spike piece</td>
<td></td>
</tr>
<tr>
<td>53.</td>
<td>2 Pieces pale fence</td>
<td></td>
</tr>
<tr>
<td>54.</td>
<td>1 Profile house</td>
<td></td>
</tr>
<tr>
<td>55.</td>
<td>1 Alter</td>
<td></td>
</tr>
<tr>
<td>56.</td>
<td>1 Window piece</td>
<td></td>
</tr>
<tr>
<td>57.</td>
<td>1 Rack wheel</td>
<td></td>
</tr>
<tr>
<td>58.</td>
<td>¼ pr. Grated doors</td>
<td></td>
</tr>
<tr>
<td>59.</td>
<td>1 Boat</td>
<td></td>
</tr>
<tr>
<td>60.</td>
<td>3 Boat carriages</td>
<td></td>
</tr>
<tr>
<td>61.</td>
<td>1 Snow scive</td>
<td></td>
</tr>
<tr>
<td>Alexandria, 1821</td>
<td>Washington, D.C., 1824</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>62.</td>
<td>1 Barrow</td>
<td></td>
</tr>
<tr>
<td>63.</td>
<td>1 Trick door</td>
<td></td>
</tr>
<tr>
<td>64.</td>
<td>1 Piece for Sheep</td>
<td></td>
</tr>
<tr>
<td>65.</td>
<td>Canvas for Richard's tent</td>
<td></td>
</tr>
<tr>
<td>66.</td>
<td>1 Bower</td>
<td></td>
</tr>
<tr>
<td>67.</td>
<td>1 pr. Swinging steps</td>
<td></td>
</tr>
<tr>
<td>68.</td>
<td>1 Rain box</td>
<td></td>
</tr>
<tr>
<td>69.</td>
<td>1 Side brick house</td>
<td></td>
</tr>
<tr>
<td>70.</td>
<td>1 Buck Basket</td>
<td></td>
</tr>
<tr>
<td>71.</td>
<td>1 Pole for Buck Basket</td>
<td></td>
</tr>
<tr>
<td>72.</td>
<td>1 Coffin</td>
<td></td>
</tr>
<tr>
<td>73.</td>
<td>1 Large figure  (<a href="#">Wood Demon</a>)</td>
<td></td>
</tr>
<tr>
<td>74.</td>
<td>Small Car</td>
<td></td>
</tr>
<tr>
<td>75.</td>
<td>1 Looking glass (<a href="#">Tom and Jerry</a>)</td>
<td></td>
</tr>
<tr>
<td>76.</td>
<td>1 Box</td>
<td></td>
</tr>
<tr>
<td>77.</td>
<td>1 pr. Stocks</td>
<td></td>
</tr>
<tr>
<td>78.</td>
<td>1 piece Railing (stair case)</td>
<td></td>
</tr>
<tr>
<td>79.</td>
<td>1 piece for moon</td>
<td></td>
</tr>
<tr>
<td>80.</td>
<td>42 Wing and Float lamps</td>
<td></td>
</tr>
<tr>
<td>81.</td>
<td>2 Gruian [sic]</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B

Three accounts of the first Chestnut Street Theatre provide the only first-hand descriptions of the building erected on Chestnut Street by Thomas Wignell and Alexander Reinagle. These accounts are presented in their entirety below.

New York Magazine or Literary Repository, April, 1791

This building, under the management of Messrs. Wignell and Reinagle, was opened for the dramatic performances on Monday evening, the 17th of February, 1794, with the opera of the Castle of Andalusia, and the afterpiece of Who's the Dupe? The managers have used their utmost endeavours to form a theatre of elegance and convenience. That part of the theatre before the curtain forms a semicircle; having two rows of boxes extending from side to side, with another row above those, and on a line with the gallery in front. The boxes are lined with a pink colored paper, with small dark spots, and supported by pillars representing bundles of reeds (gilt) bound with red fillets; between the pillars, festoons of crimson curtains, with tassels intervening, and a profusion of glass chandeliers, form an assemblage that captivates the eye, and renders the whole a most pleasing spectacle.

The paintings and scenery are equal to the generality of the European, and do the greatest credit to the pencil and genius of Mr. Milbourne. The dresses correspond with the elegance of the whole. The emblematical device over the stage is very applicable, and well executed -- it represents an eagle hovering in the air; beneath is a boy holding a blue ribband, on which is inscribed "the eagle suffers
little birds to sing." Shakespeare. The performers, who have been selected from the various theatres in England (among whom we can boast of a Darley, a Fennel, and a Mrs. Whitlock) have, in the various pieces already exhibited, exerted themselves so as to claim the protection of a majority of the inhabitants of Philadelphia, and merit their future favour. Upon the whole, this city, we may now conclude, can boast of rational entertainments equal to their most sanguine hopes.

(The article is dated Philadelphia, March 12, 1794.)

Voyage aux États-Unis de l'Amérique, 1793-1798, by Moreau de Saint-Méry

The new theatre on the northwest corner of Chestnut and Fourth Streets has nothing in its brick facade to suggest the public building. The entrance is mean and does not differ from that of an ordinary house. The interior is handsome. The arrangement of the boxes is in an agreeable semi-ellipse. The boxes are in three tiers, one above the other, fifteen boxes in each. Of these fifteen, each of the five facing the stage has seven rows of benches and will thus seat thirty-five people. . . . Each of the ten side boxes in each tier has two rows of benches and will seat four people in each row. Each row of boxes will seat 255, a total of 755 seats in the boxes. The pit is raked from the first tier of boxes to the orchestra pit. It contains thirteen rows of benches each capable of seating about thirty persons, or a total of about 400.

The auditorium is painted gray with a gold design. The third row of boxes even has slender gilt railings of some elegance. The boxes, between which a small pilaster at the front almost blocks the view, are papered in tasteless red paper.

The auditorium is lighted by small four- branched chandeliers placed in every other box beginning with the middle of the second on each side, so that the upper rail of each tier of boxes has seven. Each hangs on an S-shaped gilded iron bracket. The orchestra pit holds 30 musicians in two rows facing
each other. The forestage is large. The sides of the forestage represent the facades of handsome buildings but they face too much toward the stage so that they interfere with the view from the side boxes.

The stage, which is large, is lighted by oil lamps as in France which can be lowered for night scenes [footlights]. In the wings are crude lamps consisting of wicks floating in lard.

The acoustics are adequate. Vision is good from all points except from the rear of the second tier of the boxes where the slope of the floor of the third tier cuts off the top of the stage at the rear. And from other parts of the house one can see only with difficulty people seated in the rear of the boxes with seven rows of benches.

Admission to the boxes is six francs (une gourde), to the pit four and one-half francs (3/4 gourde) and only three francs to the heaven formed by that part of the third tier above the section of the 2nd tier with the five boxes and seven rows of benches. The corridors are large and commodious. In the upper part of the back wall of each box is a small shuttered window opening on the corridor to provide ventilation without the necessity for opening the door.

Women as well as men sit in the pit, though not women of fashion. There are women also in the gallery and the Negroes have no other place.

Between acts the pit is noisy and even indecent. One often hears "Goddamn," "bastard" and "son of a bitch." The women turn their backs on the pit during the intermission.

(The translation is taken from Bernard Hewitt's Theatre U.S.A., pp. 39-40.)

Picture of Philadelphia, by James Mease

The theatre in Chestnut, near Sixth street, was founded in the year 1731; and enlarged and improved, as it now stands, in 1805. It presents a handsome front on Chestnut street, of ninety feet, including two wings, of fifteen feet each. The centre building is ornamented with two spirited and well executed figures, of tragedy and comedy [by Rush], on each side of a
great Venetian window, over which, in two circular tablets, are emblematical insignia. The top of this centre building is crowned by a pediment. The wings, opened by large windows, recede a little from the front, above, but project below, twelve feet, to the line of the street, faced with marble; these pavilions are decorated by emblematic figures, in tablets, and connected together by a colonnade of ten fancy Corinthian columns. The extreme depth of the theatre is one hundred and thirty-four feet; the interior is judiciously and handsomely arranged. In the wings are the green room, dressing rooms, scene rooms, &c. Through the projecting wings or pavilions, you pass to the stairs of the galleries; under the colonnade, the left hand door leads to the pit, but to the boxes you ascend in front, by a flight of marble steps, enter the lobby and pass to the corridors, which communicate with all the boxes. Those in front of the stage are disposed in form of an amphitheatre; the seats of the whole, with those of the pit and gallery, are arranged so as to give the spectator the greatest advantages.

The stage occupies a front between the boxes of thirty-six feet, and runs back upwards of seventy-one feet. Over the stage, occupying part of the entablature and plafond of the front scene, is an emblematic representation of America, encouraging the drama, under which are the words, "For useful mirth, and salutary woe."

The fronts of the lodges or boxes, together with the ceiling, are handsomely gilt and decorated, hung with corresponding drapery between the columns. The scenery of the stage is well arranged, and calculated both in execution and design to produce the best effect.

For convenience, comfort and elegance of arrangement, few theatres of the size, any where, can vie with this.

This theatre is computed to hold about two thousand persons, of which number nine hundred may be accommodated in the boxes.

(Wease's Picture of Philadelphia, 1st ed., pp. 330-31.)
APPENDIX C

THE CHESTNUT STREET THEATRE:
A Conjectural Reconstruction

This reconstruction of the Chestnut Street Theatre parallels the materials presented in Chapters III and IV of the preceding study and is based on essentially the same source materials which are presented in those chapters. Although five accounts of the theatre, written prior to 1855, are available as textual references for such a reconstruction (i.e., Saint-Néry, New York Magazine, James Mease, Dunlap, and Duraug), only three appear to be non-derivative and in general agreement about details of the theatre. Therefore, the Saint-Néry, New York Magazine, and James Mease commentaries form the basis for this conjectural reconstruction.

Plans and views employed in the reconstruction consist of those iconographic materials already introduced into the body of the study, in addition to drawings prepared by the author. Special emphasis has been placed on the drawings of John Poulston, for these provide what is undoubtedly the most complete record of English theatre arrangement and construction from the period 1794-1820. No effort has been made
to suggest that a direct relationship existed between the drawings for
Foulston's Theatre Royal, Plymouth, England, and the Chestnut Street
Theatre, but there are sufficient parallels between the two theatres
to make the Foulston drawings extremely useful in a conjectural
reconstruction.

The Historical Society of Pennsylvania plan of the Chestnut
Street Theatre (Fig. 25), referred to in the body of the study as the
Stine plan, has been employed extensively in the reconstruction. It
if my belief, however, that this plan, despite the scale appended to
it, was never intended as an accurately drawn architectural plan.
Moreover, extensive testing of the scale against known measurements on
the plan indicates that the scale may well have been added to the plan
at some late date, considerably after the plan was drawn. This scale
is not accurate, either with regard to the known measurements on the
plan or in relation to the increments marked off on the scale.

Regardless of the purpose for and the scaled accuracy of the
Stine plan, it is still the only extant drawing of the Chestnut Street
Theatre block. Its value is two-fold: it provides us with an
excellent picture of the relationship of the theatre proper to its
several out-buildings, and it tends to substantiate the Warren plans
and the several descriptions of the theatre. For these values alone,
the Stine plan is introduced into this appendix.

Numerous treatises on theatres and on Georgian building
practice have been employed in the reconstruction of the Chestnut Street Theatre. Among these are Foulston's *Public Buildings Erected in the West of England*, Saunders' *Treatise on Theatres*, the several builder's guides of Asher Benjamin and the Pain brothers, and William Rotch Ware's excellent treatise *The Georgian Period*.\(^1\) Countless other sources have been consulted both for their photographs of Georgian facades and interiors and for their excellent measured drawings of Georgian construction and detailing.

In developing the present reconstruction of the Chestnut Street Theatre, mean dimensions have been established for the majority of the architectural details dealt with. These mean dimensions have been established by measuring elements in Georgian plans and elevations and then finding average dimensions from these measurements. Where plans for specific architectural elements could not be obtained, photographs have been scaled for average ratios. In reconstructing the Chestnut Street Theatre, departures from these mean dimensions have been made freely, as structure and proportion demanded, but in each instance of deviation, the extent of deviation has been governed by logic, precedence, and established Georgian precepts. Since a detailed discussion of the interior of the Chestnut Street Theatre, both before and behind the footlights, appears in Chapters III and IV

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of the text, the discussion which follows is concerned solely with the processes by which the conjectural reconstruction of the theatre has been developed.

The Plan at Stage Level

Plate I

Of the three primary sources which describe the Chestnut Street Theatre, only the description supplied by James Mease includes measurements. In all, four dimensions are given:

1. It [the theatre] presents a handsome front on Chestnut Street, of ninety feet, including two wings of 15 feet each.

2. The wings . . . recede a little from the front, [that is, from the facade of the main building] above, but project below, twelve feet, to the line of the street.

3. The extreme depth of the theatre is one hundred and thirty-four feet.

4. The stage occupies a front between the boxes of thirty-six feet, and runs back upwards of seventy-one feet.

From these figures we may deduce that the total width of the building, exclusive of the wings, was 60 feet. It is my opinion, however, that this figure represents the inside width of the building and, allowing for walls 2 feet in thickness, the total width of the original building was 64 feet. The width of the interior of the Covent Garden Theatre was only 56 feet, with such width resulting in extremely
narrow access passages to the boxes. Saint-Véry wrote of the Chestnut Street house that "the corridors are large and commodious." An inside measurement of 60 feet would provide for a pit passage of about 7 feet. Such a width is hardly "commodious," but lavish by contemporary standards.

"The extreme depth of the theatre is one hundred and thirty-four feet," wrote Dr. Mease. (The italics are mine.) It is interesting to note that he did not refer to the extreme depth of the building, but referred rather to the depth of the theatre. This distinction between words takes on import if one attempts to establish the measurement of the total depth of the theatre building. Mease relates that the wings, at the front of the theatre, "projected ... to the line of the street," i.e., to Chestnut Street. Warren's plan of c. 1806 (Fig. 23) indicates that the theatre abutted Carpenter Street at the north, or rear, of the lot, while the front of the theatre was contiguous with Chestnut Street. This placement of the theatre on its lot is confirmed by the Stine plan, c. 1816 (Fig. 25).

In 1822, William Strickland, architect of the second Chestnut Street Theatre, noted in the program for the opening night of the new theatre that the building was "ninety-two feet by one hundred and

2 Many scholars have, what I believe to be an error, assumed that this dimension referred to the total depth of the theatre building.
fifty." Since the 1822 theatre was erected on the same site as its predecessor and, like its predecessor, filled the lot on which it stood, it must be concluded that the first theatre building occupied a depth of one hundred and fifty feet.

Accepting the Strickland figure of 150 feet as the probable depth of the first Chestnut Street Theatre, we are confronted with a disparity of 16 feet between this figure and Dr. Mease's dimension of 134 feet, however, this discrepancy is readily accounted for. If Mease's figure of 134 feet represents the interior depth of the theatre, i.e., the depth from the back wall of the auditorium to the rear of the stage, an addition of 4 feet must be added--2 feet for both the north and south walls of the theatre--which brings the depth to 138 feet. To this must be added an additional 12 feet--the depth of the wings which "project ... to the line of the street"--bringing the total depth to 150 feet, a figure corresponding exactly to the depth of the second theatre.

"The stage occupies a front between the boxes of thirty-six feet, and runs back upwards of seventy-one feet." We shall have to defer to Dr. Mease's estimate, in the absence of any other figures, and set the conjectural depth of the Chestnut Street stage at 71 feet. Since the depth of the theatre--from the north wall, at the rear of the stage, to the south wall, or rear wall, of the auditorium--measured 13½ feet, according to Dr. Mease, and the stage occupied 71
feet of that depth, the auditorium must have been 63 feet deep, from
the front of the stage to the rear (south) of the auditorium.

The Auditorium.—Six feet of the depth of the auditorium was
occupied by the orchestra pit. "The orchestra pit holds 30 musicians
in two rows facing each other," wrote Saint-Méry. A depth of 6 feet
for the orchestra pit would permit seating accommodations of 24
inches, seat and void, for each row. A narrow aisle of 24 inches
would accommodate music stands and permit limited passage from one
end of the pit to the other. A depth of 6 feet is entirely consistent
with the orchestra pit depth of the Covent Garden Theatre, on which
the Chestnut Street auditorium was modeled, and with the pit depth of
the Foulston Plymouth theatre.

The depth of the pit, based on figures supplied by Saint-Méry
and Saunders, has been set at 26 feet. According to Saint-Méry, the
pit contained 13 rows of benches. Saunders, in his Treatise on
Theatres, 3 twice indicates that the distance between benches, seat and
void, should measure 2 feet. Using this figure as a mean dimension,
13 rows of benches would occupy 26 feet.

According to Saint-Méry, "each of the five [boxes] facing the
stage has seven rows of benches and will thus seat thirty-five
people." Using the mean depth of 2 feet per bench, the total depth of

3 Saunders, pp. 63-84, and 87.
these boxes at the rear of the theatre may be estimated at 14 feet.⁴ The precise arrangement of these boxes, as seen in Plate I, is derived from both the Warren and Stine plans, Figures 23 and 25, respectively.

Both plans indicate clearly that the five boxes were divided on the east-west axis as well as on the north-south axis. The division of each large front box into two areas, the front containing three rows of benches while the back contains four, seems logical, although there is admittedly evidence to support the arrangement which I have incorporated into Plate I.

The configuration of the auditorium is not determinable from the primary textual sources. Saint-Méry wrote that the arrangement of boxes around the pit formed "an agreeable semicircle," and the New York Magazine article states that the "part of the theatre before the curtain forms a semicircle," while Dr. Mease described the auditorium by saying that "those [boxes] in front [of the stage] are disposed in the form of an amphitheatre"—which is to say that they were either semicircular or semicircular. Examination of the New York Magazine view of the interior of the theatre (Fig. 21) and the Stine plan (Fig. 25) indicates that the Mease account most accurately describes the actual arrangement. The first four of the side boxes on either side of the auditorium are parallel and at right angles to the stage.

⁴This arrangement is discussed fully in Chapter III.
The spring-line for the semicircle which forms the rear of the theatre --the part "in front" of the stage--is located just past the center of the fourth box, on either side of the theatre.

The stage, according to Mease, occupies a "front between the boxes of thirty-six feet." As we have seen above, the inside width of the auditorium has been set conjecturally at 60 feet. According to Saint-Méry, "each of the ten side boxes [i.e., each of the five boxes on either side of the auditorium] in each tier has two rows of benches and will seat four people in each row." Allowing the mean depth of 2 feet for each bench, and making an additional allowance of 12 inches for extra comfort in these prime seating areas, we arrive at a sidebox dimension of 5 feet on the east-west axis, which when totalled utilizes a space of 10 feet. Added to the 36 feet of the width between the boxes, the combined space necessary for pit and box seating is 46 feet, leaving a 7 foot allowance on each side of the auditorium for access to the boxes.

According to Saint-Méry, each bench in the side boxes held four people. Allowing a seating area of 19 inches, we arrive at a north-south axis measurement of just under 6 feet 6 inches. For convenience, I have rounded off the figure to that dimension. We have, then, a box which measures 5 feet on the east-west axis by 6 feet.
6 inches on the north-south axis. These figures are entirely consistent with those of similar theatres of the period.5

The Lobby.—Both the Warren plan (Fig. 23) and the Stine plan (Fig. 25) indicate a curved stairway in the lobby. The lobby is divided into two sections by a wall, hereafter referred to as the control-wall. The control-wall, which in the Stine plan is pierced by three openings, stands between the facade-wall at the front of the building, and the retaining, or rear wall, of the boxes facing the stage.6 This wall appears to have been designed to permit the control of access to the inner areas of the theatre. The relationship between this control-wall and the curved stairways in the lobby differs slightly in the Warren and Stine plans. Warren places the control-wall just south of the stairways, while the Stine plan places the control-wall on a line with the inner radius of the stairway.

In the present reconstruction of the theatre, the dimension of the box passages has been carried forward into the lobby, and the control-wall has been located 7 feet south of the retaining wall of the boxes which face the stage. The relationship between stairways

5Boxes at the Covent Garden Theatre were 6 feet deep by about 4 feet 6 inches in width, and contained three rows of benches. In the Plymouth theatre, boxes containing four rows of benches measured 5 feet in width by 9 feet in depth.

6The Warren plan is extremely sketchy at this portion of the drawing, and it is not possible to determine the exact number of openings indicated in the control-wall.
and control-wall which appears in the Stine plan has been favored in
the present reconstruction, both for esthetic reasons and because of
the unusual requirements inherent in the placement of the pit passages
beneath the curved stairways.

The Stage and Stagehouse.--In the present reconstruction, the
depth of the forestage has been determined by two factors: (1) the
position of the first sideboxes in relation to the forestage, and
(2) the conjectural depth of the proscenium doors. Both the New York
Magazine and Joseph Jackson views of the interior of the Chestnut
Street Theatre (Figs. 21 and 22, respectively) indicate that the edge
of the forestage cuts slightly into the second side box. The Stine
plan (Fig. 20) indicates that the edge of the first side box is on a
line with the edge of the forestage. Warren's plan (Fig. 23), is
inconclusive. Since there is agreement between the New York Magazine
and Joseph Jackson views, I have opted in favor of the arrangement
shown in these views, to the exclusion of the Stine plan. The
distance from the forestage to the upstage edge of the first side box
is therefore set at 7 feet.

The proscenium doors appear to spring from the north edge of
the first side boxes. "They face too much toward the stage," wrote
Saint-Mary, "so that they interfere with the view from the side boxes."
In other words, the proscenium doors were raked so sharply upstage
that they could not be seen easily from the side boxes. There is no
known data describing these doors. In this reconstruction of the theatre, I have attempted to approximate the conditions which gave rise to Saint-Mary's objection. Accordingly, I have raked the proscenium doors 3 feet in 7 feet, from the line of the first box.

The rake of 3 feet in 7 feet is derived from a mean proscenium door width of about 3 feet,7 a figure which seems to be representative of the widths found in theatres of the period. However, in order to maintain proportion and based on the proportions illustrated in the New York Magazine and Joseph Jackson views of the theatre, I have allowed an opening of 4 feet for the proscenium doors at the Chestnut Street Theatre, with a framing piece of 2 feet on either side of the door. The total width, door and frame, has been set at 8 feet. The overall depth of the forestage—from downstage edge of the forestage to the arch of the proscenium wall—is about 13 feet.

Little information is available to assist in reconstructing the allocation of space upstage of the proscenium arch. Warren's plan (Fig. 23) indicates six sets of grooves, while the Stine plan (Fig. 25)

7Both the Covent Garden and Plymouth theatres show a proscenium door opening of 3 feet. Southern (The Georgian Playhouse, p. 44) records an opening of only 2 feet 8 inches (Stanford Theatre, Lincs), and I have found isolated examples of door openings as large as 3 feet 6 inches.
fails to record any grooves. The New York Magazine view of the interior as it appeared in 1794 (Fig. 21) attests to five pairs of grooves. It is possible that a sixth pair was employed to support additional wings or backscenes as needed.

In the absence of other guidelines, I have followed Foulston's plans, presented in the present study as Figure 50, in locating grooves in the Chestnut Street Theatre. With the first grooves placed 6 feet upstage of the proscenium arch, the five pairs of grooves occupy a total depth of 28 feet 10 inches, terminating at a point 27 feet 8 inches from the rear wall of the theatre. From this data we may ascertain that ample space existed for the addition of grooves to the five-set complement.

8 The Covent Garden Theatre appears to have employed five pairs of grooves in its productions. The Haymarket Theatre, c. 1763, had five pairs. Foulston's Plymouth theatre (1811-1813) had only four pairs, however, as did Lewis' proposal for the Limerick, Ireland, theatre. Lord Barrymore's private theatre appears to have employed only three pairs. From this data, one concludes that there was probably no standard complement of grooves during the Georgian period.

9 In none of the prompt notations from the Chestnut Street Theatre is there any indication that more than three sets of grooves were employed.

10 The stagehouse, from the proscenium opening to the rear wall of the building, measured 56 feet 6 inches. According to Saunders (p. 43), "in a full-sized theatre the opening should not be less than 35 feet nor more than 45 feet wide, and of a proportional height." Saunders cites as an example the opera house at Paris, which was 38 feet 3 inches wide, 34 feet high, and in length "about 1 and 1/2 of its width." He notes that "the length of the stage will be 1 and 1/2 of its breadth at the opening, leaving good passage behind the uttermost
Both the Stine plan (Fig. 25) and the Warren plan (Fig. 23) indicate that the arrangement of grooves at the Chestnut Street Theatre conformed to the traditional practice of raking rather sharply onstage as they receded upstage. This configuration was dictated by the demands of perspective painting and by practical demands of masking the backstage area of the theatre from the view of the audience. It has not been possible to determine with accuracy the line of this onstage rake, since no measured drawings of the Philadelphia house exist. Examination of numerous plans of Georgian theatres indicates, however, that an onstage rake of about 1 foot in 10 feet represents a more or less mean figure. Such an inclination corresponds with considerable accuracy to the rake-lines indicated on the Stine and Warren plans.

Lateral space in the stagehouse has been allocated on the basis of logic and available space, i.e., 60 feet. Since the proscenium opening of the playhouse was 28 feet wide, the off-stage space could total 32 feet--16 feet on either side of the stage. Foulston's plan of the Plymouth stage (Fig. 58) indicates a lateral dimension of 16 feet between the proscenium opening and the side walls.

scene." Since the Chestnut Street house measured 36 feet between the boxes, but only about 28 feet between the proscenium walls, we might expect to find a minimal depth of 42 feet or a maximum depth in excess of 54 feet. The Chestnut Street Theatre, with a reconstructed depth of 56 feet 6 inches, is slightly in excess of Saunders' ideal.
of the theatre. In both the Philadelphia and Plymouth theatres, these dimensions represent a somewhat less than ideal working space.

Saunders' recommendation for off-stage space (Saunders, p. 44) calls for a minimum width of 45 feet from proscenium to side wall. A space corresponding to this would permit, according to Saunders, an adequate working area, providing space for behind-the-scenes movement of scenic pieces, furniture, set pieces, and actors. The Plymouth theatre, which fell 27 feet short of Saunders' ideal, made up for the deficiency by a large scene-dock, or wing and flat storage area, a continuation of the stage right wing space. From the evidence presented in the Warren and Stine plans, the Chestnut Street stage-house appears to have employed a similar arrangement of off-stage space after 1800. Prior to the addition of the Latrobe wings, however, it appears that scenery was stored in an area at the extreme rear of the stage, designated in the Warren plan (Fig. 23) as Scene Room. Like the scene-dock in the wings, this Scene Room would have helped to alleviate congestion in the backstage area.

Plan at the Level of the Second Boxes

With the exception of two stairways in the Latrobe wings which appear to have originated at this level—just upstage of the proscenium arch and the "balcony" above the proscenium doors—the plan of the second level of the Chestnut Street Theatre evidently did not
differ from the plan of the first, or stage floor level. The "balconies," shown clearly in the interior views of the theatre (Figs. 21 and 22), rise above the proscenium doors to the height of the second tier ceiling. Following the views of the interior, these "balconies" have been drawn to the same width as the proscenium doors with the same width trim.

The Elevation

Plate II

The conjectural reconstruction of the elevation of the Chestnut Street Theatre, presented as Plate II, combines two elevational sections in one plate. The section Aa-Eb is taken through the east wing of the Latrobe addition, on the north-south transverse, while the balance of the section—from Eb to the front, or south facade, of the theatre—is taken on the center line of the north-south transverse.

Generally speaking, little need be said by way of explanation about this elevation. It follows closely the materials presented in Plate I, serving to explicate the plan of the theatre presented there. Three aspects of Plate II must be explained, however: (1) the manner in which the heights in the elevation have been determined, (2) the arrangement of stairways in the portion of the elevation Aa-Eb, and (3) the determination of the passage below the pit.
Determination of Elevations.—Elevations in Plate II have been developed both from the proposal which was submitted by John Inigo Richards and by a careful examination of Georgian building practice in the construction of public buildings in general, theatrical buildings specifically. The Richards proposal (Fig. 1) illustrates a building whose central door appears to have a ratio in height to width of about two-to-one. This ratio includes the lunette which crowns the door proper. A mean door-width in public buildings appears to have been about 5 feet; therefore, the conjectural height of the main door of the Chestnut Street Theatre has been set at 10 feet 2 inches.

From the top of the lunette to the lobby ceiling, a void of 1 foot 1 inch has been allowed. Allowing a mean stair rise of about 7 inches, with an entrance flight of seven steps, the ground-to-lobby ceiling height has been set conjecturally at 15 feet 5 inches.

All other heights in the elevation have been developed from this basic unit and from numerous examples of Georgian architectural practice. For the most part, heights within the lobby and auditorium areas have been developed from Saunders' Treatise on Theatres and from elevations of Georgian and Regency theatres. Elevations in the backstage areas have been developed from the basic conjectural height of 15 feet 5 inches and from the works of Foulston and the numerous builders of the period.

The rake of the gallery is admitted conjectural and has been
developed to provide maximum sight-lines for patrons in the gallery, while at the same time fitting within the confines of the facade as developed from the Richards drawing and the Birch engraving (Figs. 1 and 4, respectively). The slope of the pit has been developed to conform with general practice and to provide adequate line-of-sight for patrons in that part of the theatre.

Like the central doorway, the elevation of the Venetian window in the facade has been determined from a sense for proportion and from a knowledge of Georgian practice. The height of this window determines the height of the second story of the theatre building; from the positioning of this window has been developed the arrangement in the third story of the facade. Here again, the Richards and Birch drawings have been followed in an attempt to determine the relationship between the windows in the top and center stories of the Chestnut Street Theatre facade. Plate III illustrates the classical Venetian window, drawn by Isaac Ware in 1756, while Plate IV presents a modular construction of a Venetian window, prepared by the author. This modular construction has been derived from an extensive analysis of Georgian examples.

Analysis of Stairways: Section Aa-Bb, Plate II.—On a level with the third tier of boxes, the Chestnut Street Theatre stagehouse contained the flys, the painting room, the "artist's room," and dressing rooms, and an assortment of stairways and passages leading to
the areas above the auditorium. The plan of this area is given in Figure 24, Warren's *Section of the Old Chestnut Theatre of 1808, After the Plan of the Old Covent Garden, England, from the Painting Room*.

**Floor.** In this plan are clearly indicated the passages leading to the walkway over the proscenium arch and to the upper and lower areas of the theatre. Reconstruction of this area has been extremely difficult: the Warren and Stine plans differ considerably in their placement of stairways, and the arrangement which I have developed from these plans is admittedly highly speculative.

The arrangement of stairways presented in the section *Aa-Db*, Plate II, is predicated on the belief that from the stage floor to a line level with the floor of the third tier of boxes, the off-stage area of the theatre was unobstructed. In both the Warren plan of the stage level (Fig. 23) and the Stine plan (Fig. 25), the area in the east, or stage left, wing is designated "scene room." In keeping with Georgian practice, the purpose of this scene room was to provide a storage space for wings and flats not in use or to be used in forthcoming scenes. It seems logical to assume, therefore, that in order to accommodate scenic pieces of 15 to 18 feet in height, this wing area or "scene room" must have been unobstructed by a floor intervening at the level of the second tier of boxes.

Warren's plan of the theatre at stage level (Fig. 23) indicates a pair of stairways, each designated "7 - Communications to
the Top part of the House." Figure 24, Warren's plan of the theatre at the level of the third tier of boxes,\textsuperscript{11} indicates a stairway designated "2X - communication to the Lower part of the House," located in both the east and west wings, the Latrobe additions. While it is impossible to determine the precise arrangement of these stairways, it is possible to reconstruct an arrangement which is mutually satisfactory to both the Stine and Warren plans. This arrangement is outlined below:

1. Stairway "7" in the Warren plan (Fig. 23) rises from the level of the stage floor to the height of the second tier floor, where it terminates in a landing.

2. Stairway "2X" in Warren's plan of the upper level (Fig. 21) originates at the level of the third tier floor and descends to a landing, where it turns ninety degrees and descends again to meet the upper landing of stairway "7."

3. Stairways "7" and "2X" have been rendered in Plate II, section A2-B2, in solid lines. The arrangement of stairways is identical in both the east and west wings, even though the stairways are located in slightly different portions of the two wings.

Warren's plan of the theatre at the level of the painting room floor (Fig. 24) indicates that between the flys and the dressing rooms there ran a passage parallel to the fly cat-walks. This passage is indicated as having been within the original walls of the theatre. In all probability, this passageway provided access from the backstage

\textsuperscript{11}The plan has been identified by Warren as "Plan of the Theatre at the Level of the Flys."
area of the original building to the area above the proscenium, i.e.,
the "picture room" or property room, and the carpenter's shop, located
under the eaves of the theatre. Figure 24 indicates that there existed
a stairway at both the north and south ends of this passageway. The
stairway at the south end is designated "XL" in the Warren plan
(Fig. 24), while that at the north end of the passage is marked "1."

Quite clearly, stairway "XL" leads to the "passage over the
proscenium" shown in Figure 24. The terminus of stairway "1,"
however, is extremely difficult to determine. I have indicated,
rather arbitrarily, that stairway "1" leads to an area above the
"artist's room," as shown in Figure 24. It is equally possible,
however, that the stairway provided access directly to the space under
the roof of the theatre. Because of the arrangement of the other
stairways in this area, it is highly unlikely that stairway "1" led
downward from the fly-floor level, however.

The Pit Passage.--Access to the pit passage was through doors
in the left and right side of the original building, in the Chestnut
Street facade. The height of this passage has been set at 7 feet
6 inches, a height consistent with passageways and hallways of the
Georgian period. The pit passage, at the north end, appears to have
terminated in a wall. Whether there was a door in this wall providing
access to the area beneath the stage is problematical. Such an
arrangement was not uncommon in theatres of the day--it can be found
in the theatre at Richmond, Surry, England, for example— but there is nothing in the Chestnut Street Theatre materials to suggest or deny such a doorway. The conjectural arrangement of this passageway may be seen in Plate V.

The Pit Passage

Plate V.

The location and arrangement of the pit passage have been deduced from Mease and from the iconographic materials in the Stine plan and Richards proposed elevation of the Chestnut Street Theatre. Mease wrote that "under the colonnade, the left hand door leads to the pit."\(^1\) Both the Stine plan (Fig. 25) and the Richards proposal (Fig. 1) indicate the presence of two doors in the facade in addition to the central doorway. In view of the limited space in the pit, it seems illogical that only one point of access would have been provided to this area. Moreover, the Warren plan (Fig. 23) clearly indicates two short flights of steps at the north end of the pit. These, we may presume, led from the pit passage into the pit. I conclude, therefore, that both the left hand and right hand doors in the main facade led to the pit passage.

On first consideration, the doorways in the Stine plan seem to present a problem, for both open directly into the curved staircases

\(^{12}\) Mease, pp. 330-331.
of the lobby. To this problem a solution is provided by an
examination of the Richards proposal. Directly under each of the
lobby windows, on a line with the bottom steps in the main stairway,
is a small window. These windows must have served the purpose of
admitting air and light into the basement area of the theatre, at the
level of the pit passage. It seems reasonable, therefore, to
conjecture that a flight of steps must have led up from the basement
to the exterior doors of the pit. Since the pit entrance opened into
a flight of steps leading into the basement, and since the pit doorway
appears to have been directly in line with the lobby stairway, the pit
doorway must have opened into an area _under the lobby stairs_, probably
directly under the landing.

Mease wrote that "you . . . enter the lobby and pass to the
corridors, which communicate with all the boxes."³ Therefore, the
foot of the curved lobby stairway must have originated in the corridor
rather than in the lobby, since this stairway provided communication
with the upper boxes.

The Stine plan indicates seventeen steps in the curved lobby
staircase. The landing is located at the top of the tenth step.
Since the height of the lobby has been placed conjecturally at 11 feet
4 inches, the rise of each of seventeen steps would be about 5 inches.

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³Mease, pp. 331.
This would place the landing of the curved stairways about 6 feet 8 inches above the level of the lobby floor, and would permit ample room beneath the landing for the passage of patrons to the pit passage.

Granting this clearance beneath the lobby stairways of 6 feet 8 inches, the stairs leading from the pit entrance in the facade of the building to the pit passage could only have been projected along the east-west axis of the building, for there would not have been sufficient head room beneath the lobby stairs to permit projection along the north-south axis.

The control-wall of the first and second floor lobbies probably served as a structural support for the floor of the gallery above. It may be inferred, therefore, that this wall continued downward from the first floor lobby into the basement of the building, linking with the foundations. This wall, then, could have served the same purpose in the pit passage that it served in the lobby of the main floor, providing a point of control for access into the pit.

Plate V indicates the arrangement of the pit passage, the stairways leading to it from street level, and the stairways which led from the passage into the theatre proper. The stairways at the south facade of the building, indicated in dotted line, originate at ground level. This arrangement follows the Richards proposal (Fig. 1), to the exclusion of the Stine plan (Fig. 25). Richards' employment of a
short flight of steps, rather than having the pit passage doorways open directly from street level, seems to be more esthetically pleasing and more in keeping with Georgian taste. It is quite possible, however, that the arrangement shown in the Stine plan was actually followed in practice.

**Conclusion.**—These drawings (Plates I-V) have been prepared in an attempt to correlate and explicate the more salient features of the Stine and Warren plans, the Richards proposal, and the Birch drawing of the facade of the Chestnut Street Theatre. They are admittedly conjectural. Their authority is the authority of the iconographic materials themselves and that provided by the countless texts and builder's guides and drawings from the Georgian period which have been examined by the author in the preparation of these plates.
Conjectural Reconstruction of the Chestnut Street Theatre: Plan at the Level of the Stage.
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