

WATER-CLOSETS.

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A

HISTORICAL, MECHANICAL,

AND

SANITARY TREATISE.



BY

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## P R E F A C E .

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The principal part of this book is a republication of the series on WATER-CLOSETS which appeared in the *American Architect and Building News* during the year 1883.

The matter has been revised, and the section on tanks and supply-valves added.

All illustrations were engraved from drawings made by the author, in a uniform style, specially for this work.

In book form the author hopes that the matter contained in it may be of service to all (and I think there are many such) who desire information on this plumbing fixture either from a mechanical, historical, or *sanitary* standpoint. The information contained herein has been gleaned from all available sources.

GLENN BROWN.

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Washington, D. C., 1884.

# CONTENTS.



## SECTION I.—ANCIENT CLOSETS.

|  | PAGE |
|--|------|
| Introductory—Roman Closets—Pompeian—Middle Ages—From<br>Fourteenth to Nineteenth Century. Figs. 1-33 - - - | 7-27 |

## SECTION II.—MODERN CLOSETS.

|   |       |
|---|-------|
| Classification—Valve Water-Closets—Sliding and Hinged Valves—<br>Valves Opening Upward, Outward and Downward—Ship and<br>Forcing Closets. Figs. 34-95 - - - - - | 28-60 |
|---|-------|

## SECTION III.—PAN CLOSETS.

|   |       |
|---|-------|
| English, French and American Pan Water-Closets—Automatic,<br>Spring and Tilting Pans—Receiver or Container Sprinkler—<br>Closet Bowls. Figs. 96-123 - - - - - | 61-76 |
|---|-------|

## SECTION IV.—PLUNGER CLOSETS.

|  |       |
|--|-------|
| Hollow and Solid Plungers or Plugs—Methods of Trapping Over-<br>flow—Plunger Chambers with Floats and Sprinklers. Figs.<br>129-159 - - - - - | 77-97 |
|--|-------|

## SECTION V.—HOPPER CLOSETS.

|  |        |
|--|--------|
| Long and Short Hopper Water-Closets—Side-Outlet Closets—Closets<br>with Jet Supply—Siphon Closets. Figs. 160-199 - - - | 98-118 |
|--|--------|

## SECTION VI.—MISCELLANEOUS CLOSETS.

|   |         |
|---|---------|
| Latrines—Trough Closets, etc. Figs. 202-208 - - - | 119-124 |
|---|---------|

## SECTION VII.—WATER-CLOSET ATTACHMENTS.

|   |         |
|---|---------|
| Seats and Casings—Safes—Water Supply Connections—Soil and Vent<br>Pipe Connections—Bidet Attachment—Levers. Figs. 209-231 - | 125-137 |
|---|---------|

## SECTION VIII.—SUPPLY VALVES AND TANKS.

|  |         |
|--|---------|
| Supply Valves—Tanks or Cisterns—Siphon, Tilting and Plug<br>Tanks—Waste Preventers—Ball-Cocks. Figs. 232-252 - - | 138-156 |
|--|---------|

# WATER-CLOSETS.

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## SECTION I.

### ANCIENT CLOSETS.



WATER-CLOSETS as conveniences are so necessary, and in their proper construction are so important to our comfort and health, that I think any research into their history will repay us by increasing our knowledge on the subject.

It will be necessary in the first place to review, cursorily, other modes of convenience in countries where, and at times when, water-closets properly speaking were not in use.

Naturally, we first examine the ruins of Egypt, where existed the earliest traces of civilization, for remains of water-closets. The small private and detached rooms which we find in the remains of Egyptian houses were probably used as privies. Ewbank, in his work on hydraulics, calls the summer chamber\* of Eglon, king of Moab, a water-closet.

If I thought proper to follow the example of Ewbank I would call water-closets the private rooms which were in an isolated position in one of the halls, being near a door communicating with the other chambers. Sir J. Gardner Wilkinson says: "These rooms bear a striking resemblance to the before-mentioned private room of Eglon."†

That the Greeks‡ made use of privies in their houses is proved

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\* *Judges*, iii, 20-25

† *Egypt*, Sir J. Gardner Wilkinson, Vol. II., page 104.

‡ Viollet-le-Duc has given the Egyptians', Greeks' and Romans' privies (*latrines*) in their houses in the *Habitations of Man*, pages 92-102, 197 and 231.

by an old writer\* from a passage in Aristophanes (*Ecclesiaz.*, verse 1050). This was about four hundred years before Christ.

The Romans, if not the first in art, the leaders in all that pertained to luxury and comfort, were the first, as far as we can ascertain, to use water-closets. In Rome we find four kinds of receptacles for excreta. Close stools (*lasana*), in which the rich ancients sometimes used gold or silver bowls; vases (*gastra*) which were stationed on the roadways; public privies (*cloacina*), of which Sir William Gell tells us there were one hundred and forty-four in Rome; privies (*latrina*), probably for private use.

From their derivation we would infer the two classes last mentioned to be water-closets, *cloacina* being derived from *cloaca*, a sewer or drain, and *latrina* being a diminutive of *lavatrina*, a wash-bowl or basin. No doubt, as at the present day, the name included the room as well as the basin or receptacle contained in the room. Pompeii was covered with ashes and lava by an eruption of Mount Vesuvius more than eighteen hundred years ago, and among its ruins were found the most perfect remains of an ancient water-closet. Pompeii being a small town and a province of Rome, I would suppose the water-closets to have been more numerous and more elaborately ornamented in the capital city.

In the *Pompeiana* Sir William Gell,† describing a privy, writes of an arched recess about three feet deep discovered in the kitchen of

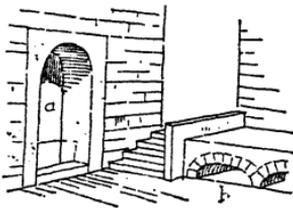


Fig. 1.—Privy in kitchen in Pompeii.  
a, Niche. b, Ovens.

one of the ruined dwellings of Pompeii, most inconveniently placed, according to American ideas (Fig. 1). The wood-work was gone when discovered, about 1819, but the marks of the hinges and fastenings were still visible. Three or four feet to one side were the remains of brick ovens. It would appear, according to a quotation from Pretonius, that in ancient Italy it was considered desirable to

have in close proximity the place for the preparation of the food and

\* *Mém de l'Académie des Sciences Inscriptions nouvellement établie à Troyes en Champagne.* A. Troyetset, Paris. 1756.

† *Pompeiana*, Sir William Gell, Vol. II., page 171; illustration, page 151.