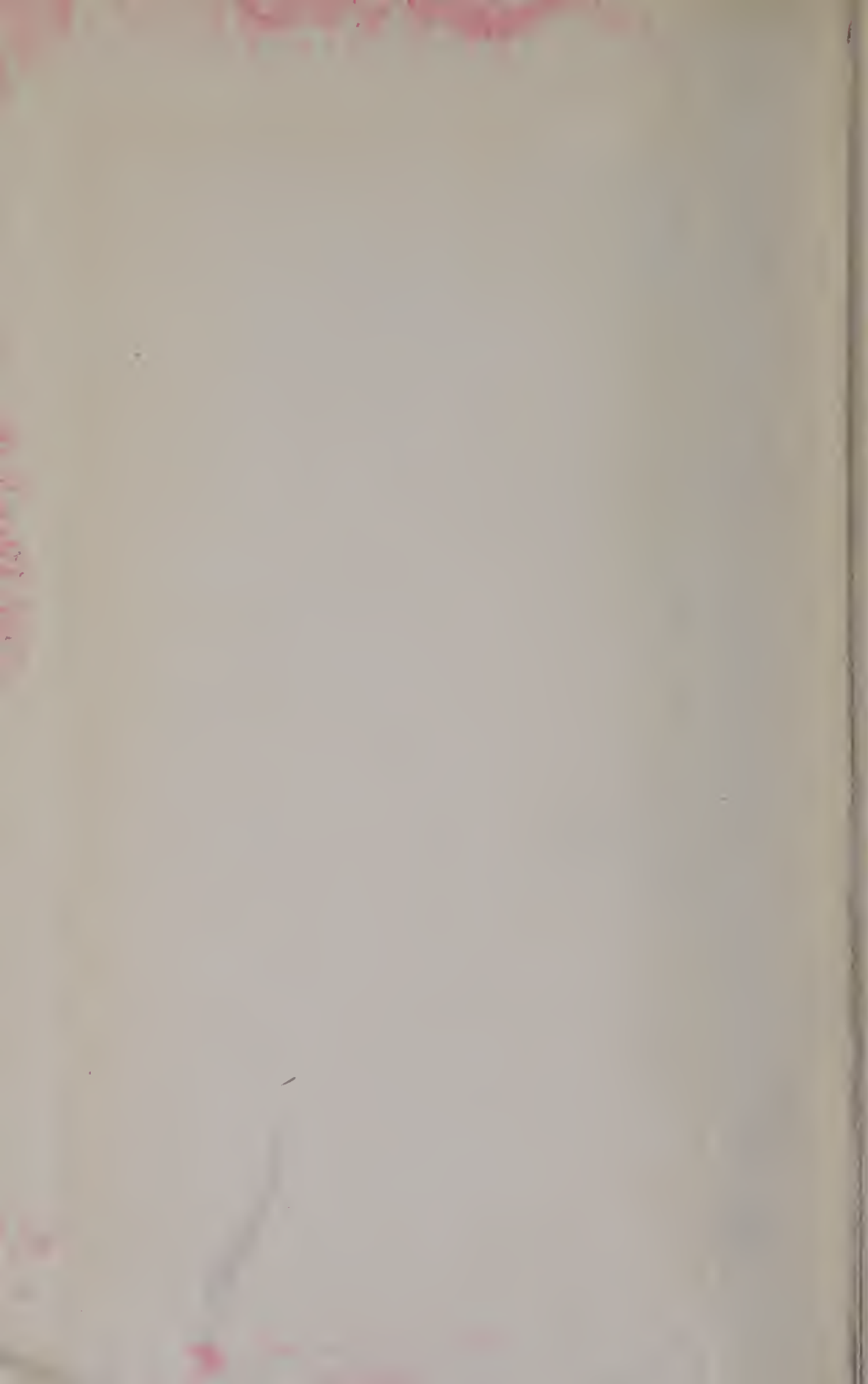
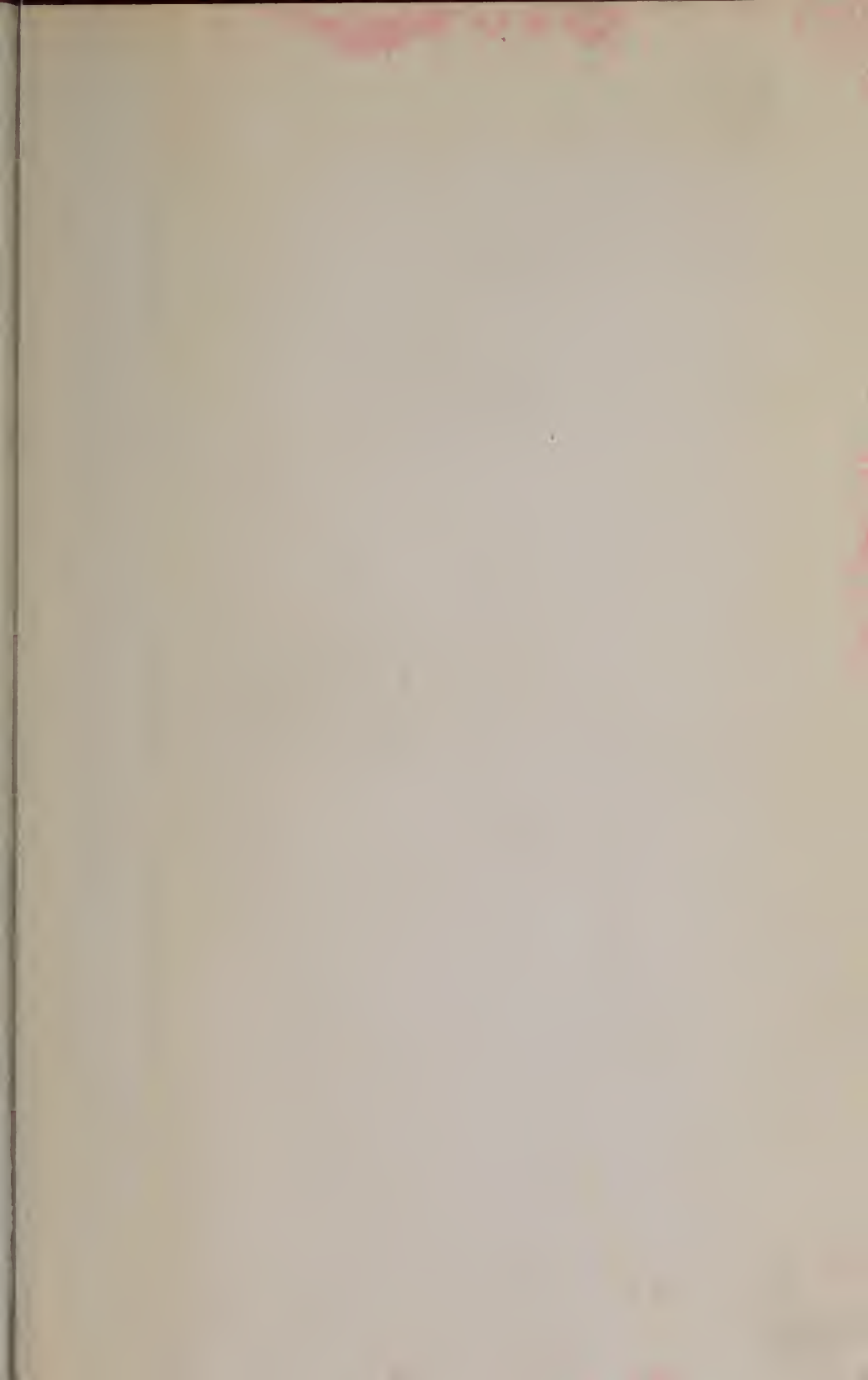
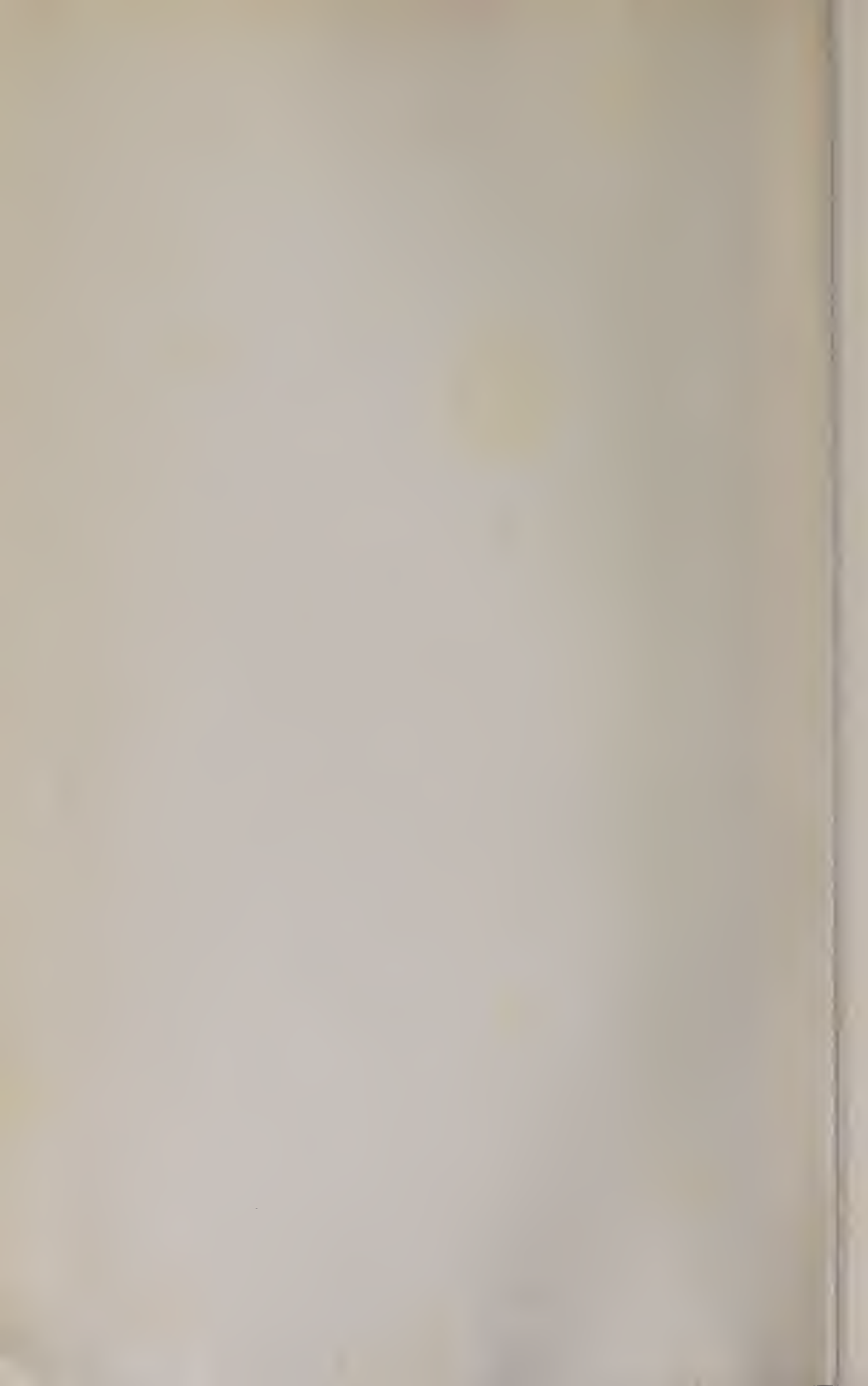
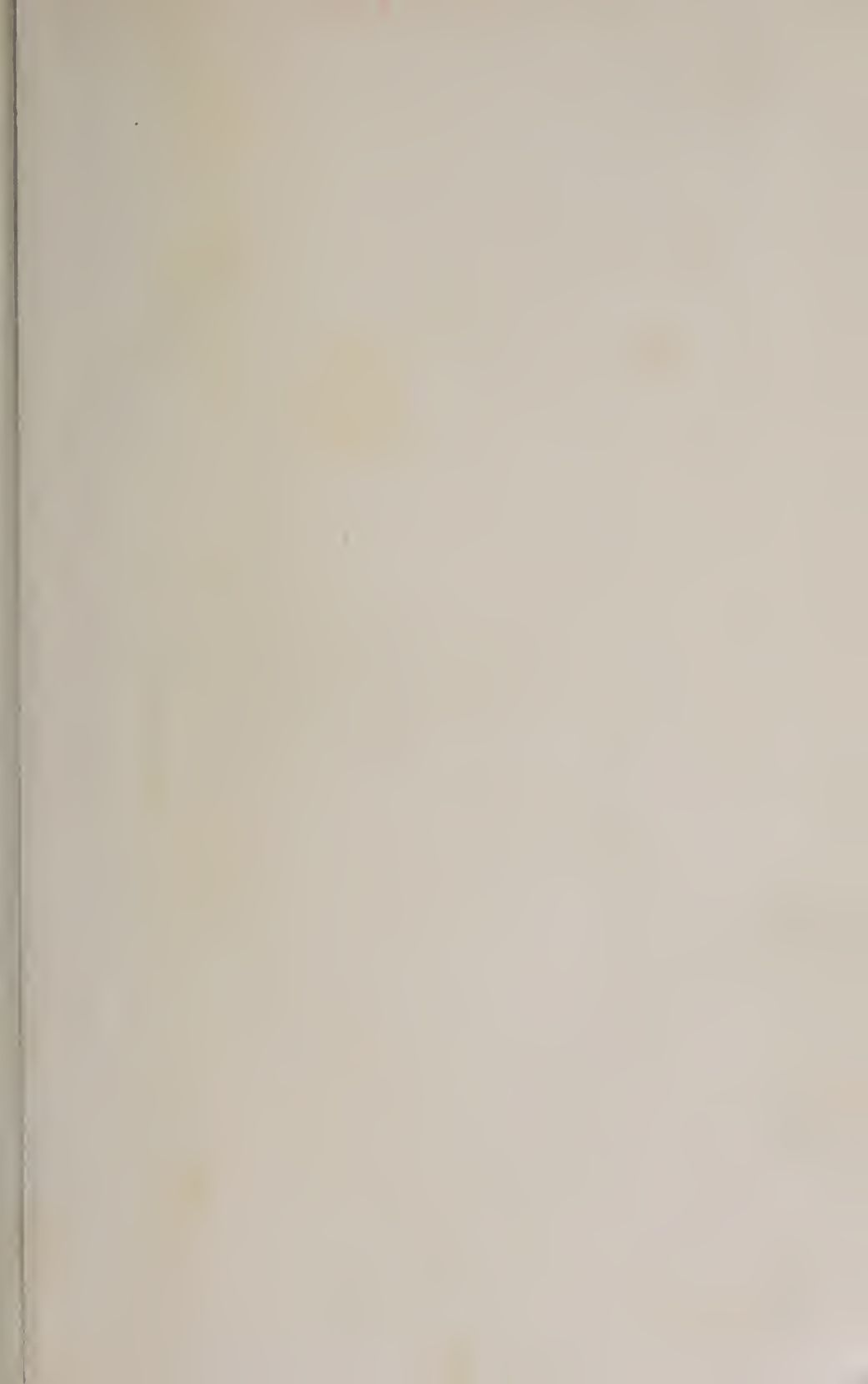


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BROWN STONEWARE "BARTMANN" (16 $\frac{1}{4}$  inches in height).

Bouffloux (?), Early Eighteenth Century.

Museum No. 705-461.

ART PRIMER

CERAMIC SERIES, No. 6

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PENNSYLVANIA MUSEUM AND SCHOOL OF INDUSTRIAL ART

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# SALT GLAZED STONEWARE

GERMANY, FLANDERS, ENGLAND

AND

THE UNITED STATES

BY

EDWIN ATLEE BARBER, A.M., PH.D.

CURATOR



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## PREFATORY NOTE.

THE *Art Primers* of the Pennsylvania Museum and School of Industrial Art are designed to furnish, in a compact form, for the use of collectors, historical and art students and artisans, the most reliable information, based on the latest discoveries, relating to the various industrial arts. Each monograph, complete in itself, contains a historical sketch, review of processes, description of characteristic examples of the best productions, and all available data that will serve to facilitate the identification of specimens. In other words, these booklets are intended to serve as authoritative and permanent reference works on the various subjects treated. The illustrations employed, unless otherwise stated, are reproductions of examples in the Museum collections.

In reviewing the various branches of ceramics the geographical arrangement used by other writers has given place to the natural or technical classification to permit the grouping of similar wares of all countries and times, whereby pottery, or opaque ware, is classified according to *glaze*, its most distinctive feature, while, on the other hand, porcelain, or translucent ware, is grouped according to *body*, or *paste*.

In the preparation of a Primer on *Salt Glazed Stoneware* the author has consulted the principal authorities on the subject, and he is particularly indebted, for many of the facts presented, to *The Art of the Old English Potter* and *The Art Stoneware of the Low Countries and Germany*, by M. L. Solon; *English Earthenware and Stoneware*, by William Burton; the South Kensington Handbook on *English Earthenware*, by Prof. A. H. Church, and *Early English Pottery, Named, Dated and Inscribed*, by John Eliot Hodgkin and Edith Hodgkin. The information contained in these pages will serve to clear up certain disputed points and correct some of the long accepted traditions of ceramic writers which have been found to be erroneous.

E. A. B.



# SALT GLAZED STONEWARE.

## CHARACTERISTICS.

Stoneware is a highly fired, partially vitrified pottery, composed of plastic clay and sand, covered with an exceedingly hard saline glaze resembling in texture the granular surface of an orange skin, produced by throwing into the kiln, when the heat is most intense, common salt, which vaporizes and settles on the surface of the ware in minute drops, and being thin and perfectly transparent does not obliterate the finest scratch. The body of the ware, of a white, brown, buff, or grey color, is so hard that it will strike fire with steel, produces a ringing sound when struck, is impervious to water and resists the action of acids. The ware is finished at a single firing, except, as we shall see hereafter, in those cases where the decorations are applied over the glaze in enamel colors, as in some of the stoneware of Kreussen and the white salt glaze ware of England.

## ORIGIN.

It is not known exactly when glazing by evaporation was first discovered. In North Germany salt glazed stoneware was being manufactured extensively early in the sixteenth century. It became popularly, but improperly, known as Cologne ware, a name evidently given to it from the fact that the products of the neighboring potteries in the valley of the Rhine were sent to that market. Similar wares were produced about the same time, or soon after, in Flanders, hence the name, *grès de Flandres*, or *grès Flaman*.

Salt Glazed Stoneware may be divided into three groups, as follows:—

- I. STONEWARE OF GERMANY AND THE LOW COUNTRIES.
- II. SALT GLAZED WARES OF ENGLAND.
- III. STONEWARE OF THE UNITED STATES.

## I. STONEWARE OF GERMANY AND THE LOW COUNTRIES.

The stoneware of Germany and the Low Countries may be grouped under the following heads, according to the color of body and glaze:—

1. WHITE WARE OF COLOGNE OR SIEGBURG.
2. RED BROWN WARE OF RAEREN.
3. BROWN OR MOTTLED WARE OF FRECHEN.
4. RUSTY, DARK BROWN WARE OF KREUSSEN.
5. GREY WARE OF GRENZHAUSEN, WITH BLUE, BROWN AND PURPLE ENAMELS.
6. BROWN AND GREY WARES OF BOUFFIOUX.

### I. SIEGBURG.

Siegburg, opposite Bonn, is believed to be the earliest centre of stoneware manufacture in Germany. In the fifteenth century a coarse, brownish-grey stoneware was produced there. In the sixteenth century more artistic ware began to be made and a fine white clay was used. This was for a long time commonly known as Cologne ware. The earliest dated pieces appeared in the second half of that century.

Among the most characteristic forms produced at Siegburg are the tall drinking vessels, or *cannettes*, of cylindrical shape, slightly tapering toward the top. At the neck and base are several corrugations or rings imitating the hoops of the earlier wooden drinking flagons. Extending from top to bottom are elaborately decorated panels, usually three in number, stamped with relief designs and attached to the surface side by side, in separate sheets. In some instances the same panel is repeated, but on many of the best examples three entirely different series of subjects appear, such as medallions, enclosing coats of arms, masks, and scriptural scenes, frequently accompanied by dates. These pieces have been imperfectly glazed, many examples having an entirely dry surface, while others seem to have absorbed a thin coating of the glaze which shows as a slight gloss in patches. Several good examples of Siegburg white stoneware *cannettes* may be seen in the Pennsylvania Museum. At the top of one is a circular medallion representing Solomon judging between the two women with the dead and living



1. WHITE STONEWARE BALUSTER JUG ( $5\frac{1}{8}$  inches in height).  
Siegburg, Sixteenth Century.  
Museum No. '99-186.



2, 3. WHITE STONEWARE CANNETTES ( $9\frac{3}{4}$  inches in height).  
Siegburg, Late Sixteenth Century.  
Museum Nos. '05-242, '76-861.



babes, repeated three times. Extending around the central portion are three oval medallions, each depicting David and Goliath, while below are three half-circles, in each of which Daniel and the angel are portrayed. Between the medallions are well-modeled vines. The clay is of a pale buff tint, with a very thin coating of salt glaze (see No. 3). Another vessel of the same form shows figures of Joshua, Alexander and David, with the date 1589 (see No. 2), while a third is entirely covered with biblical subjects, including portrayals of Moses, Adam and Eve, a crucifix and Agnus Dei.

Another form which was popular with the early Siegburg potters is the baluster-shaped jug, with globular body spreading out above in a cup-like mouth and below in a broad foot. A marked peculiarity of these pieces is the thumbing or pinching of the feet into bosses or waving outlines. A small baluster jug, in the Museum collection, is decorated with three relief medallions, representing Adam and Eve in the Garden of Eden (see No. 1). The handles of these jugs are circular or ring-shaped, and are frequently only large enough to admit the forefinger.

The main characteristics of Siegburg stoneware are the light color of the clay; the absence of salt glaze except as a thin gloss; decoration (usually scriptural or historical subjects) by means of stamped panels applied (in the case of cannettes) in sheets; the thumbing or smoothing of the bases of pieces by hand, and the consequent absence of the concentric grooves produced by the cutting wire. Marks were rarely used.\*

White stoneware, bearing a strong resemblance to the Siegburg ware, but with a better glaze, was made at Altenburg, Saxony, late in the seventeenth and early in the eighteenth century. Cylindrical mugs embossed with the arms of Saxony are numerous. One example, in the Museum collection, is decorated with bands of separately applied rosettes and small floral reliefs, and mounted with hoops of pewter, a broad foot and lid of the same metal (see No. 4). Frequently the whiteness of the clay was intensified by a thin wash of stanniferous enamel.

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\* The writer has been informed by Charles and William Wingender, proprietors of a stoneware factory at Haddonfield, N. J., that white stoneware was also made at one time at Höhr, where they served their apprenticeship, many pieces having been discovered on the sites of the early potteries at that place. The manufacture of white stoneware was not continued in Germany after the Thirty Years' War (1618-1648).

## 2. RAEREN.

Raeren, near Aix-la-Chapelle, in the old province of Limburg, was the earliest seat of the stoneware industry in Flanders. In 1814 it became a part of Germany. Here was produced the first salt-glazed brown stoneware, pieces having been discovered bearing dates as early as 1539.

The Raeren, or Limburg, stoneware is of a metallic reddish-brown color, produced by the flames of the kiln acting on the oxide of iron contained in the clay, the protected or covered parts remaining uncolored. Examples of Raeren stoneware frequently present a mottled or variegated surface, shading in places from a pale grey through yellow to bronze-like brown. Sometimes the ware was dipped in a solution of pulverized iron ore or rubbed with black lead to darken the color. The glaze is often smooth and glossy, and does not show distinctly the granulation or pitting of the surface.

One of the most characteristic shapes is the jug or vase with a cylindrical centre placed between two half-spheres, the lower one terminating in a foot, the upper one surmounted by a long, cylindrical neck. These jugs were moulded in separate parts, which were afterwards joined together. They have a frieze extending around the central portion, usually decorated with scenes from the Old or New Testament. A subject frequently employed is the Peasants' Dance. A pair of flagons, or *Bauerntanz-Krüge* (peasants' dance jugs), in the Museum collection, have a light brown or reddish glaze, and the date 1597 (see No. 5). Around the centre extend bands with continuous figure scenes of men and women dancing in pairs, accompanied by the following inscription:—

GERHET DU MUS DAPER BLASEN  
 SO DANSSEN DI BUREN ALS WEREN SI RASEN  
 FRY VF SPRICHT BASTOR  
 ICH VERDANS DY KAP MIT DEN KOR.

Translation :

Gerald thou must blow lustily  
 So the peasants may dance as though they were mad  
 Faith, says the pastor,  
 I will dance away my cap with my cassock.

Jugs of similar shape are embellished with a band of panels or apartments, illustrating "Works of Mercy." The letters which





4. WHITE STONEWARE MUG ( $7\frac{1}{4}$  inches in height).  
Altenburg, Saxony, about 1760.  
Museum No. '82-360.



5. BROWN STONEWARE JUG (10 inches in height).  
Raeren, 1597.  
Museum No. '82-357.



generally accompany these scenes are the abbreviated inscriptions, as D. D. R., "Durstigen Dranken" (give drink to the thirsty); H. S., "Hungrigen Speisen" (feed the hungry); N. K., "Nackten Kleiden" (clothe the naked); W. D., "Wappen Dantzig" (the Dantzig arms), etc. These jugs were afterwards copied in the grey and blue stoneware of Grenzhausen.

While, as a rule, factory marks were not placed on ancient stoneware, on Raeren ware are frequently found letters and monograms which represent abbreviated inscriptions, or the initials of merchants for whom the pieces were made. In a few instances the first letters of the names of potters or modelers are found, but these were later copied by so many other makers that they may be considered untrustworthy for purposes of identification. Among these marks will often be seen a device resembling the figure 4, which, while its significance has never been fully determined, is supposed to represent the badge of an association of merchants. These marks, if they may be considered as such, are usually enclosed in medallions which ornament the sides of jugs and other articles.

The principal characteristics of Raeren stoneware, as we have already shown, are a yellowish or greyish body; heavy metallic glaze, varying in color from a deep reddish-brown to a pale dirty yellow, frequently mottled or freckled, in places, and more nearly resembling a thick coating of lead than a deposit of salt glaze; moulded in sections and joined together; decorations in relief, among the most popular subjects being Peasants' Dances, Works of Mercy, biblical scenes, Arms of towns and individuals, medallions containing ciphers, badges or marks.

### 3. FRECHEN.

Frechen, near Cologne, is one of the ancient centres of salt glazed stoneware in Germany. The ware produced there bears a close resemblance to that of Raeren in color and forms, and it is frequently difficult to distinguish the one from the other. Many of the Frechen products, however, possess well-marked peculiarities. The glaze is often of a blackish, rather than brown tint, and sometimes appears of a dull greenish-yellow tone, usually freckled or accumulated in spots. The ware is generally coarse and simply decorated. A common shape is the Greybeard, distinguished by a spherical body tapering at the foot and neck, with a single small loop handle at the back. On the narrow portion of the neck is

modeled a rude representation of an elongated, bearded mask. These vessels, known in Germany by the name Bartmann (bearded man), were afterwards imitated in England, where they were popularly called Bellarmines. Llewellynn Jewitt, in his *Ceramic Art of Great Britain*, states that they "were derisively named after Cardinal Bellarmine, who died in 1621. The Cardinal having, by his determined and bigoted opposition to the reformed religion, made himself obnoxious in the Low Countries, became naturally an object of derision and contempt with the Protestants, who, among other modes of showing their detestation of the man, seized on the potter's art to exhibit his short stature, his hard features, and his rotund figure, to become the jest of the alehouse and the byword of the people." This form of jug was produced in infinite variety, and, while also made to some extent at other German and Flemish factories, is more frequently found among the Frechen productions.

Another form of vessel, produced extensively at Frechen, was the cannette with boldly modeled decorations, usually coated with the blackish glaze already mentioned. At a later date the grey and blue stoneware was extensively made there.

A decorative detail, frequently used on Bartmanns and other shapes, is a coin-like medallion, disposed at intervals around the surface. Some of the best examples possess bands of inscriptions around the centre. Arms and conventionalized designs in medallions form a conspicuous feature, and vines and scroll-work also abound.

Frechen ware was cut from the wheel, instead of being torn away, as was the case with the Siegburg ware, and one of the most distinctive features is the presence of elliptical markings or concentric circles of grooves on the base, usually starting at a fixed point near one edge and extending entirely across, produced by the coarse twisted wire or cord used in cutting the clay from the wheel while slowly revolving, at the end of the operation of throwing. This phenomenon proves the ware to be of later date than the hand-finished pieces of Siegburg. These lathe marks are only occasionally found on the productions of other German stoneware factories.

The principal distinguishing features of Frechen ware are, therefore, the gathering of the brown glaze into groups of spots or freckles; the wire marking on the base; the use of applied coin-





6. BROWN STONEWARE "GREYBEARD" (7 $\frac{7}{8}$  inches in height).  
Bonfloux, about 1700.  
Museum No. '94-201.



7, 8. DARK BROWN STONEWARE DRUG JAR AND MUG (14 and 6 $\frac{1}{4}$  inches in height).  
Kreussen, Bavaria, Middle Seventeenth Century.  
Museum Nos. '05-236, '82-343.

like ornaments and scroll-work ; the majority of the brown glazed Greybeards or Bartmanns originated at Frechen.

#### 4. KREUSSEN.

At Kreussen, in Bavaria, brown stoneware was made from about the middle of the sixteenth century ; the earliest dated specimens which have come to light belong to the early part of the seventeenth century. A dark brown clay was extensively used. The ware usually possesses a rather thin glaze or gloss, more evenly distributed than that of the white ware of Siegburg. Jugs, jars and mugs are among the most familiar forms. The earliest productions are of a uniform, rusty brown color, decorated with applied fragmentary reliefs, such as figures of the Apostles, heads of historic personages, arms, etc. The drinking mugs were usually capacious, and of broad, squatty form. Drug jars of barrel shape, with four or six flat sides or panels, were particularly characteristic.

In the Museum are several fine examples of this ware. One of these, a hexagonal drug jar, bears relief figures of ten of the Apostles on five of the panels, two on each, while the sixth side contains the inscription, JOHANN MAY. DOCTOR. M. D. ST. C. M. 1657. Around the shoulder of the jar are clusters of grapes, while at the six angles are heads of cherubs, festoons, etc. A contracted circular top is fitted with a pewter lid which is screwed in, on which the date 1658 is engraved. This piece came from the celebrated collection of M. Roux, of Tours (see No. 7). A second example is similarly decorated with representations of the Apostles, apparently from the same moulds, while above them are portrait medallions of men and women, including one of Gustavus Adolphus. On the shoulder are five-petaled roses and other flowers. A large, low drinking mug of the same rusty brown ware, with pewter cover, has for adornment the twelve Apostles, in the midst of which is the figure of Christ (see No. 8). The surface of these pieces shows distinctly, through the glaze, the lines of the brush used in smoothing the clay around the applied reliefs, the fine parallel striations running at different angles, where the direction of the brush has been changed. Another peculiarity noticed on the majority of the Kreussen products is an unglazed circular place near the centre of the base, several inches in diameter, evidently caused by placing the pieces on top of each other in the kiln, only the annulus or exposed rim being subjected to the fumes of the vaporized salt.

At a somewhat later period, bright, opaque enamels,—red, yellow, blue, brown and white,—resembling oil colors, were applied to the reliefs, and gilding was liberally used. The same forms were employed, the decorative subjects being figures of the Apostles, representations of boar and stag hunts, heads and busts of actual personages, etc. Several fine examples of this style may be seen in the Museum collection. A group of enameled pieces of the seventeenth century, two mugs and a wine jug, or *cruche*, are shown in Nos. 10, 11 and 12. The ornamentation is in relief, touched with vivid light blue, red, yellow, white and green enamels. The mug at the right is ornamented with figures of Saints, alternating with sprays of lilies of the valley. Around the top extends an inscription, while beneath the handle appears the date 1672. The central jug bears in front the figures of the Virgin and Child. A large, low mug, in the same collection, is embellished with hunting scenes (see No. 9) on the two sides, and the head of a gentleman of the period in front.

So-called mourning jugs, with geometrical patterns in black and white, often reheightened with gilding, were also produced in abundance. The use of enamel colors and gold marked the decadence of the art. Many counterfeits of this ware have been produced, but these may generally be detected by the oil pigments used, which can be easily scraped off with a knife.

The distinguishing features of Kreussen stoneware are the peculiar uniform dark-brown color of the glaze, often suggestive of iron rust; the distinctive forms of vessels; the use of colored, opaque enamels and gilding on the wares of the second period, and the frequent occurrence of large, circular, unglazed places on the bases of vessels. Some of the tall enameled jugs, or *cruches*, however, which have come to our notice, show the wire markings which distinguish the Frechen Bartmanns, but the grooves are finer and closer together.

##### 5. GRENZHAUSEN.

At Grenzhausen and Höhr, near Coblentz, a grey clay was used in the manufacture of salt glazed stoneware during the seventeenth, eighteenth and nineteenth centuries. The earlier wares reveal the influence of the Raeren potters. Later, a more original style was developed, in which free-hand incised designs were combined with moulded ornaments, and cobalt blue and manganese purple or brown enamels,—colors which will stand the high temperature to





9. BROWN STONEWARE MUG (5 $\frac{3}{4}$  inches in height).  
 Decorated with Colored Enamels. Kreussen, Bavaria, Seventeenth Century.  
 Museum No. '05-237.



10, 11, 12. BROWN STONEWARE MUGS AND JUG (Central Jug 10 inches in height).  
 Decorated with Colored Enamels. Kreussen, Bavaria, Seventeenth Century.  
 Museum Nos. '82-338, '99-470, '82-340.



which the ware is exposed,—were, and still are, employed. These are most effectively used in the very distinctive style of work known as *champlevé*, where the patterns are dug out and filled in with the colored glazes (see Nos. 13 and 14). Jugs with crowned monograms of German and English sovereigns, pilgrim bottles, mugs of an infinite variety of forms, bottles with numerous flat or faceted surfaces, salt cellars, inkstands, figures of animals, annular vases and harvest bottles, are only a few of the forms which have been made in these places. A profusion of moulded ornaments, applied in all sorts of combinations, often covers the entire surface. A mug of grey body and dark-blue coloring, with mounted knights in relief, and a “Works of Mercy” flagon, in the Raeren style, are two specimens of Grenzhausen stoneware of the eighteenth century, in the Museum collection (see Nos. 15 and 17), and in No. 18 we see a good example of the G. R. (*Georgius Rex*) jug, which was later copied in England.

A variety of Grenzhausen ware is composed of white clay, resembling that of Siegburg, embellished with incised designs and relief ornaments. Flowers, leaves and other details were produced by placing on the surface of the ware small bats of clay and pressing them with engraved stamps, and then carefully removing the excess of clay around the edges, instead of first moulding the ornaments and attaching them separately, as was done at other places. The stems were then traced in the clay with an instrument possessing four or five parallel points (see No. 16).

Many of the modern pieces made at Grenzhausen and Höhr are reproductions of the characteristic earlier forms of other places. As such pieces, however, are usually made of the bluish-grey clay instead of the white and brown clays of the originals, and are colored with blue and purple enamels in the Grenzhausen manner, they cannot properly be classed among forgeries. The most popular forms imitated are the tall cannettes of Siegburg and the Peasants' Dance jugs of Raeren.

The chief characteristics of Grenzhausen stoneware are a grey or bluish-grey tint of the body and a heavy, brilliant salt glaze; the peculiar decoration,—a combination of incuse, or sunken, and incised ornaments and moulded reliefs; the use of cobalt blue, purple and brown enamels. Marks seldom appear on Grenzhausen ware. Handles were generally recurved or curled up at the lower ends, frequently forming loops, through which cords could be

passed for suspension (see No. 15). The blue enamel of the older ware is blacker than that of the modern, and the body is of a more yellowish-grey tint than that of the recent productions.

## 6. BOUFFIOUX.

Pottery is known to have been made in Bouffieux and the adjacent villages of Pont-de-Loup and Chatelet (now in the territory of Belgium) at an early period, but it was not until near the end of the sixteenth century that the manufacture of stoneware was firmly established in that district. The earlier ware was a brown stoneware of good body and glaze, imitating the products of Raeren and Frechen, but much inferior in quality of decoration. At a later date the grey and blue stoneware of Grenzhausen was imitated here, and continued to be manufactured extensively until the beginning of the nineteenth century. The products were the coarser varieties of ware, such as beer jugs, traveling bottles, water barrels, large Bartmanns used for holding oils, acids, drugs, etc., and kitchen utensils.

Quantities of Bouffieux stoneware have been dug up in the vicinity of London, England. A fine example, in the Museum collection, is eight inches in height, and has a handle which, at the lower extremity, is extended into a long point below the thumb, pressed indentation, like a lizard's tail, and bears on the base the concentric grooves of the cutting wire (see No. 6). It was brought to this country from Ireland many years ago. The illustration facing the title page represents a large Greybeard or Bartmann of primitive form and crude decoration, which may be seen in the collection of this Museum.

Occasionally marks, initials or names of makers are found on pieces of Bouffieux ware, but the characteristic mark of merchants, resembling the figure 4, so frequently found on Raeren ware, does not occur on the Bouffieux products. The decoration usually consists of a single conventionalized and meaningless medallion, or of an occasional grotesque mask, in the Frechen style.

## OTHER CONTINENTAL STONEWARE CENTRES.

Previous to the middle of the seventeenth century Flanders included a part of the present territory of Holland and the departments of Nord and Pas-de-Calais, now belonging to France. Stoneware was produced extensively at numerous places of less im-



13. GREY STONEWARE MUG ( $5\frac{7}{8}$  inches in height).  
Moulded and Incised Decoration. Museum No. F, 444.

14. GREY STONEWARE JUG (8 inches in height).  
Champlevé Style, Blue and Claret Enamel. Grenzhausen, Eighteenth Century.  
Museum No. '76-859.



15. GREY STONEWARE MUG (5 inches).  
Moulded Decoration. Grenzhausen, Eighteenth  
Century. Museum No. '05-240.



16. WHITE STONEWARE MUG ( $8\frac{1}{8}$  inches  
in height).  
Stamped and Incised Decoration.  
Grenzhausen, about 1750. Museum No.  
'76-856.





17. GREY STONEWARE JUG (11½ inches in height).  
"Works of Mercy," Raeren Style. Grenzhausen, Eighteenth Century.  
Museum No. '05-241.



18. GREY STONEWARE TANKARD (10¾ inches in height).  
Moulded, Incised and Blue Enamel Decorations. Grenzhausen, Eighteenth Century.  
Museum No. '06-210.





portance in Germany and in the Low Countries. These productions, being in the styles of those of Raeren, Frechen or Grenzhause, need not be reviewed here.

## II. SALT GLAZED WARES OF ENGLAND.

The salt glazed stonewares of England may be divided into three classes:—

1. EARLY BROWN WARE (FULHAM AND NOTTINGHAM).
2. WHITE SALT GLAZE WARE (STAFFORDSHIRE).
3. MODERN BROWN WARE (LAMBETH).

### I. FULHAM AND NOTTINGHAM.

The earliest English stoneware was known as "Crouch ware." Mr. M. L. Solon, in *The Art of the Old English Potter*, asserts that the term was derived from the name of the white Derbyshire clay, while Mr. William Turner, in the *Connoisseur* of January, 1905, suggests, with some degree of plausibility, that it may be a corruption of Crich, the name of a town in Derbyshire where "Crouch ware" was produced at an early date. The oldest English salt glazed stoneware is a close imitation of the Frechen brown ware, being distinguished by its very conspicuous accumulation of the glaze, or granulation in minute drops. Previous to the beginning of the manufacture in England large quantities of white and brown stoneware from the Rhenish potteries found their way into the London market, and it is often difficult to distinguish these from the Fulham productions.

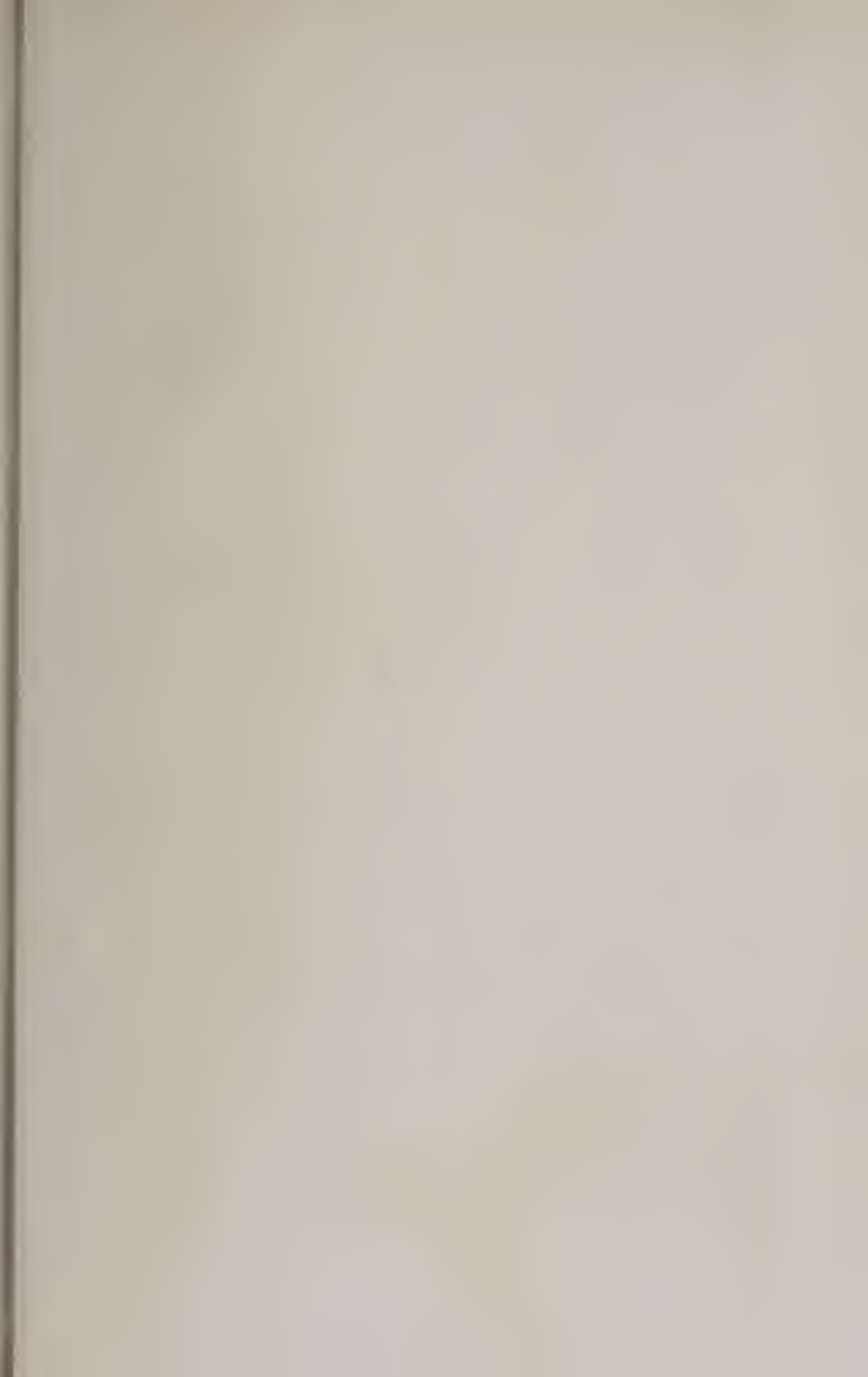
It has not been clearly established who first introduced the use of salt glaze into England. Numerous writers have repeated, without question, the story of its accidental discovery in the year 1680 by a servant who, while boiling salt in an earthen vessel, was called away, and on her return discovered that, the brine having overflowed, the outside of the pot was partially glazed. Mr. Solon and others have, however, effectually disposed of this tradition by pointing out the fact that it is a chemical impossibility to produce salt glaze under such conditions.

To the Elers brothers other historians have accredited the invention, about 1690, but in the light of recent discoveries it is now generally conceded that glazing with salt had been practiced in England before the arrival of these potters in Staffordshire.

John Dwight, of Fulham, took out a patent in 1671 for his discovery of the "mysteries of the Cologne ware." Few pieces of his work are known, but those which have survived are of the highest merit. He executed a series of statuettes which rank with the best works of the kind ever produced. Among these may be mentioned the figures of Jupiter, Mars, Meleager and Saturn, colored in imitation of fine bronze, and busts of Prince Rupert, James II, Mrs. Pepys and an effigy of his deceased daughter, Lydia Dwight, in lighter colored clay, which are preserved in some of the principal museums of England.

After Dwight's time the Fulham works were continued, and operated until a recent date. Here were made mugs, tankards, jugs, Bellarmine and beer bottles, bearing the medallions and initials of English rulers. Dated examples have been found, ranging from 1721 to 1764, some of the popular subjects, in relief decoration, being hunting scenes, the head of Queen Anne, St. George and the Dragon, and "Hogarth's Midnight Modern Conversation."

Grey stoneware jugs of spherical form, and cylindrical drinking mugs, of the eighteenth century, with stamped and incised decorations and blue enamel ornaments, have been found in considerable numbers in certain localities, particularly in the New England States. Many of these bear the impressed letters G. R. (Georgius Rex) beneath a crown. Although this ware bears a close resemblance, in color, shapes and decorative features, to the Grenzhausen productions of the same period, it has always been known to American collectors as Fulham stoneware. There is one particular in which it appears to differ from its German prototype, that is the manner in which the handles are attached. In the Grenzhausen pieces the base of the handle usually terminates in an outward and upward curl, while the majority of the specimens which have come under our notice, that were brought to this country by the early settlers, possess a handle which is pointed at the lower end where it joins the body. That such pieces were brought from England has been clearly proved, but whether they are of English origin or German importation is still an unsettled question. Mr. William Burton, in his *English Earthenware and Stoneware*, states that "We have further information as to the wares made by Dwight's successors from what is known of the Fulham *trouaille*, found in 1866. While some repairs were being carried out at the works a forgotten chamber was broken into, which was found to contain a heap of





19, 20. GREY STONEWARE JUG AND MUG.  
Moulded, Incised and Blue Enamel Decorations.  
Germany, Eighteenth Century. Wadsworth Athenæum, Hartford, Conn.



21, 22, 23. WHITE SALT GLAZE PLATES (8 and 14 inches).  
Staffordshire, about 1750.  
Museum Nos. '82-760, '82-1416, '04-131.

stoneware vessels and fragments of various types and dates, long walled up and forgotten. Most of these specimens were in the shape of common ale jugs or wine bottles, and so similar were they in material, shape and decoration to the pieces we know to have been imported from Cologne, that but for this find we should have been in doubt if such pieces were of German or of English make. In addition to these were many round-bellied grey jugs, with scratched and stamped ornaments and patches of cobalt blue and manganese purple used as grounds. Several of the latter kind had the monograms of English sovereigns, with a crown above, stamped on the front, and thus give us a definite place of origin for some of the well-known pieces of this description." Mr. Solon, in his Catalogue of a Small Collection of Salt Glaze Ware (Hanley, England, 1890), asserts that "The Fulham Ware, having never been marked, and being often the mere reproduction of the types imported from Flanders and Germany, identification rests in most cases on mere speculation." Some good examples of this ware are to be seen in the Fuller and Terry collections of the Wadsworth Athenæum, Hartford, Connecticut (see Nos. 19 and 20). Photographs of these two pieces were sent to Mr. Solon for identification, and he has expressed his opinion that they are not of English manufacture, but Flemish or German importations of the second half of the eighteenth century. "I never saw any example of the kind," he writes, "that had been attributed to an English potter." It will thus be seen that the best authorities differ in regard to the origin of this class of ware.

At Nottingham, stoneware was first produced at the beginning of the eighteenth century. It is thin in substance, well potted and graceful in form, but crudely decorated with simple designs, the prevailing subjects being scrolls, flowers and foliage, and frequently inscriptions, scratched in the clay while wet. The glaze is of a bright, red-brown tint, with a somewhat metallic lustre, caused by a thin wash of ferruginous clay. The surface of the ware is much smoother and less granular than that of Germany and Flanders. Most characteristic in form are the mugs, pitchers or jugs, with ribbed or horizontally corrugated necks, two-handled cups, and the celebrated "bear jugs," the latter being made in the form of a bear, covered with shavings of clay to produce a rough appearance, the head being detachable to serve as a drinking cup, while the body answers as a receptacle for the beverage.

At Brampton, Chesterfield and Swinton brown stoneware was produced in the eighteenth century, which closely resembles the Nottingham ware, but is thicker and clumsier, and not so well finished.

## 2. STAFFORDSHIRE.

The term "salt glaze" has been applied to an English product, a true stoneware of white body, thin and graceful in appearance, so highly fired as to be translucent in its thinnest parts, covered with an exceedingly hard saline glaze, which first appeared in Staffordshire near the close of the seventeenth century. Thomas Miles, of Shelton, produced a white stoneware as early as 1685. Prof. A. H. Church has divided the manufacture of white salt glaze ware into four periods, approximating twenty years each, as follows:—

Previous to 1720, Archaic period, when impressed and applied ornaments were used on thrown or turned vessels.

From 1720 to 1740, when flint was added to the body, the work being fine and sharp.

From 1740 to 1760, when colored enamels were employed for decorating the surface.

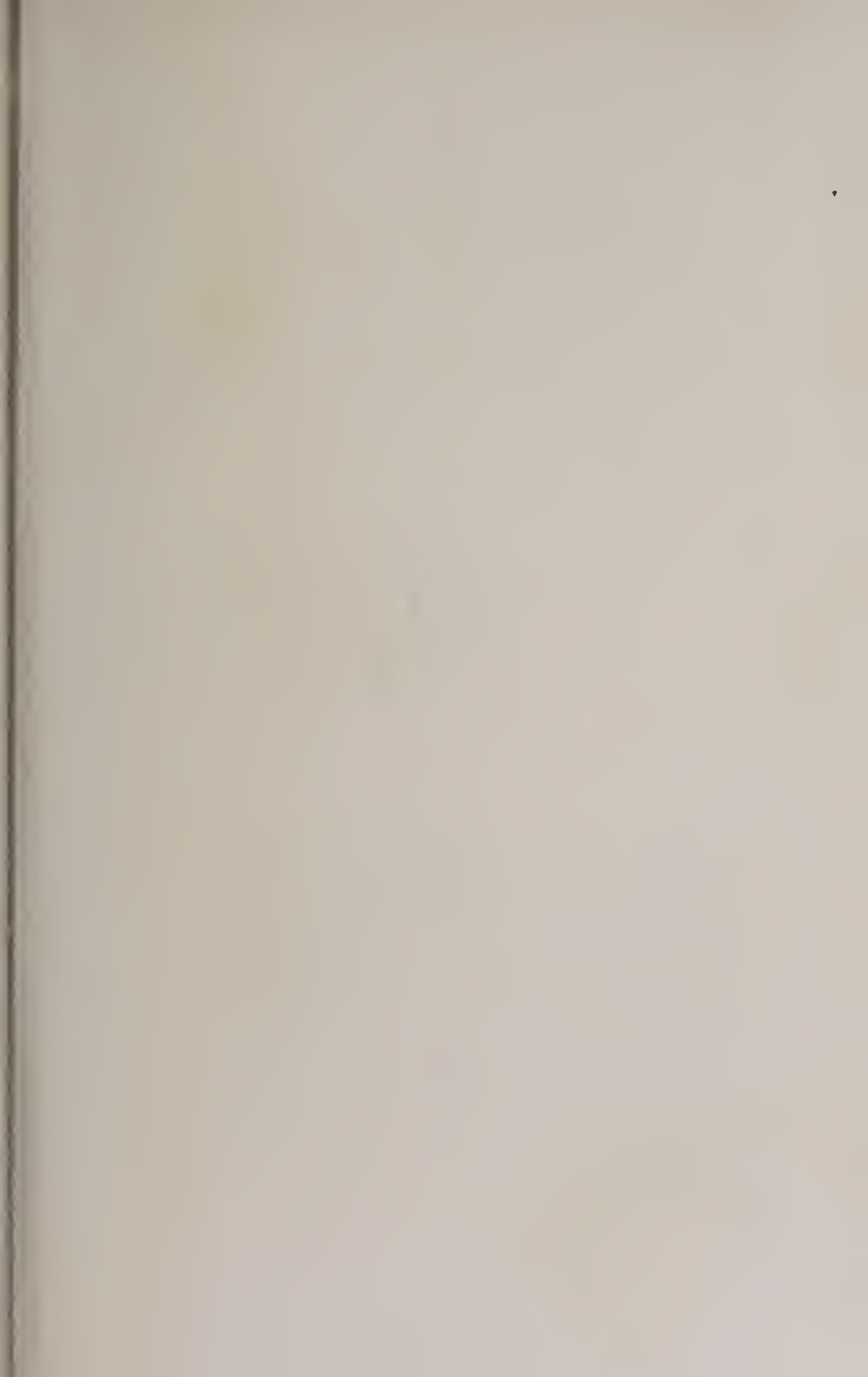
From 1760 to 1780, when basket and pierced work were prevalent.

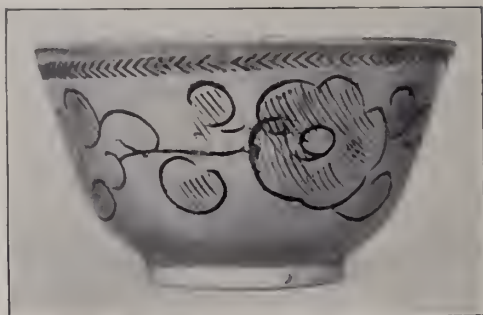
The productions of the first of these periods were embellished with ornaments impressed or stamped in the clay, or separately moulded and afterwards applied to the surface. The ground of the ware was drab colored or white.

The ware of the second period was formed by stamping or pressing in metal dies, or by the casting process, which consisted in pouring liquid clay or slip into baked clay or plaster moulds in which the decorative designs had been previously engraved. This method insured thinness of substance and delicacy and sharpness of relief.

Numerous potteries throughout the Staffordshire district began the manufacture of this beautiful and purely English invention, which soon began to be exported in considerable quantities to Holland and other European countries and to America. Teapots, tea caddies and many-sided vessels were produced in an endless variety of forms, in imitation of various animals, such as camels, squirrels, bears, cats or representations of houses.

Conventional forms were ornamented with fan and shell-shaped





21. WHITE SALT GLAZE CUP.  
Scratched Blue Decoration. Staffordshire, about 1770.  
Owned by Mr. W. L. Calver.



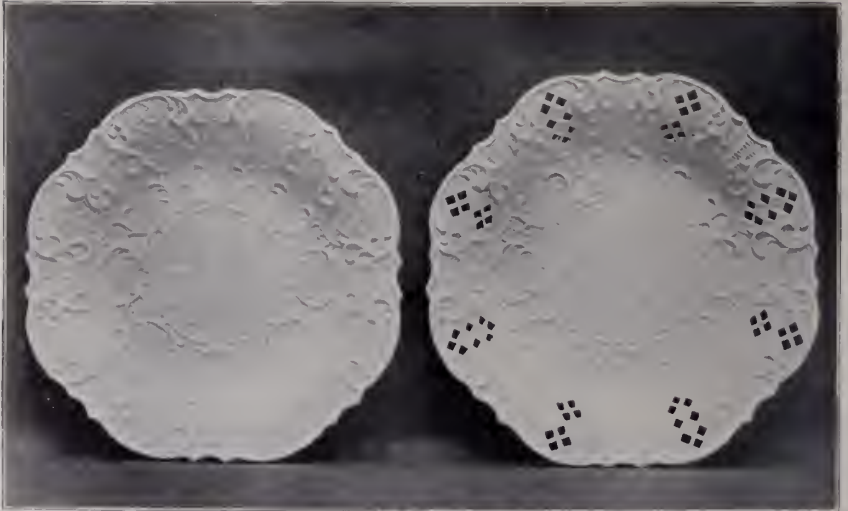
25. WHITE SALT GLAZE SAUCE BOAT ( $3\frac{3}{4}$  inches in height).  
Staffordshire, about 1750.  
Museum No. '82-1439.







26, 27. WHITE SALT GLAZE TEA POT AND CREAM JUG.  
Decoration in Enamel Colors. Staffordshire, about 1770.  
Wadsworth Athenæum, Hartford, Conn.



28, 29. WHITE SALT GLAZE DISHES (9 and 10 inches).  
Staffordshire, about 1780.  
Museum Nos. '82-1417, '82-1418.

reliefs, scrolls, floral patterns and delicate trceries. Bottles, vases and jars were beautified by floral sprays, rosettes, armorial bearings, masks and convolute ornaments, while plates, tea cups, dishes and trays of various graceful forms were bordered, and often entirely covered, with panels and alternating medallions of hatched, diapered, trellised and starred ornamentation. During this period and the preceding, no color was used to relieve the pure whiteness of the ware (see Nos. 21, 22, 23 and 25).

In the third period, color was first added to the decoration. Patterns were scratched in the unbaked clay, into which the blue color was rubbed before firing. This style of ornamentation was known as "scratched blue" (see No. 24). Pieces of this description frequently bore inscriptions and dates ranging from 1750 to 1780. Between 1740 and 1750 William Littler, of near Burslem, produced some most beautiful and effective pieces of salt glaze with a solid, deep blue ground, by dipping them, while still in a partially dried clay state, into a slip of the same ingredients, to which blue color had been added, which were afterwards fired in the salt glaze oven. Some of these pieces were painted with designs in raised white enamel, in the Persian style of the stanniferous faience of Nevers, France. These decorations were fixed by a second firing at a lower temperature. Another style of decoration, largely employed between 1740 and 1760, was the painting on the glaze in enamel colors. Human figures, Chinese scenes, birds and flowers were added in polychrome (see Nos. 26 and 27). Toward 1750, pressing in plaster moulds came into vogue, whereby it became possible to produce large pieces, such as platters and tureens. Entire table services were made by this method. Some of the later pieces were covered with tinted grounds,—red, purple and turquoise blue,—in which small panels of various patterns were reserved in white, to receive the polychrome paintings. About 1755, soon after the invention of transfer printing, that process was applied to salt glaze decoration to a considerable extent. During the third period the art of making salt glaze ware had reached its highest development.

The fourth period marked the decadence of the art. Pierced and basket designs, in combination with embossed work (see Nos. 28 and 29), were the principal features of this epoch. Aaron Wood and other potters modeled patterns with basket work centres and perforated borders. About 1780, after the introduction of cream

ware and porcelain, the manufacture of salt glaze began to decline rapidly, although it continued to be made at a few establishments until after the beginning of the nineteenth century.

While the greater portion of white salt glaze was produced in Staffordshire, it was also made to a limited extent at Liverpool, Jackfield, Leeds and a few other places.

### 3. LAMBETH.

Stoneware was first produced at Lambeth about 1751. The ware is usually colored a rich reddish-brown above, while the lower portion is of a buff or yellowish hue, presenting the appearance of having had the upper half covered with a darker surface wash. The form of the Lambeth jugs, like those of John Turner and William Adams, of the early nineteenth century, is characteristic. From a spherical body rises a broad, perpendicular collar, the upper edge of which has been pinched or bent out in front to form a small triangular lip. Handles frequently terminated in a moulded ornament or were fixed with a modeled leaf. Two examples of this form, of about 1820, in the Museum collection, are embellished with moulded hunting scenes and separately applied figures of men, monkeys and dogs. One of these has a handle which has apparently been attached by means of two stoneware screws, a method which obtained in some of the English potteries at that time (see No. 30).

Mr. John Doulton was apprenticed at the beginning of the nineteenth century at the old Fulham works of White, the celebrated potter, and after serving his time he went to Lambeth, where, in the year 1815, he established, in conjunction with Mr. John Watts, a small stoneware pottery in Vauxhall Walk. In 1826 they moved the works to High Street, where the plant was rapidly enlarged as the business steadily increased.

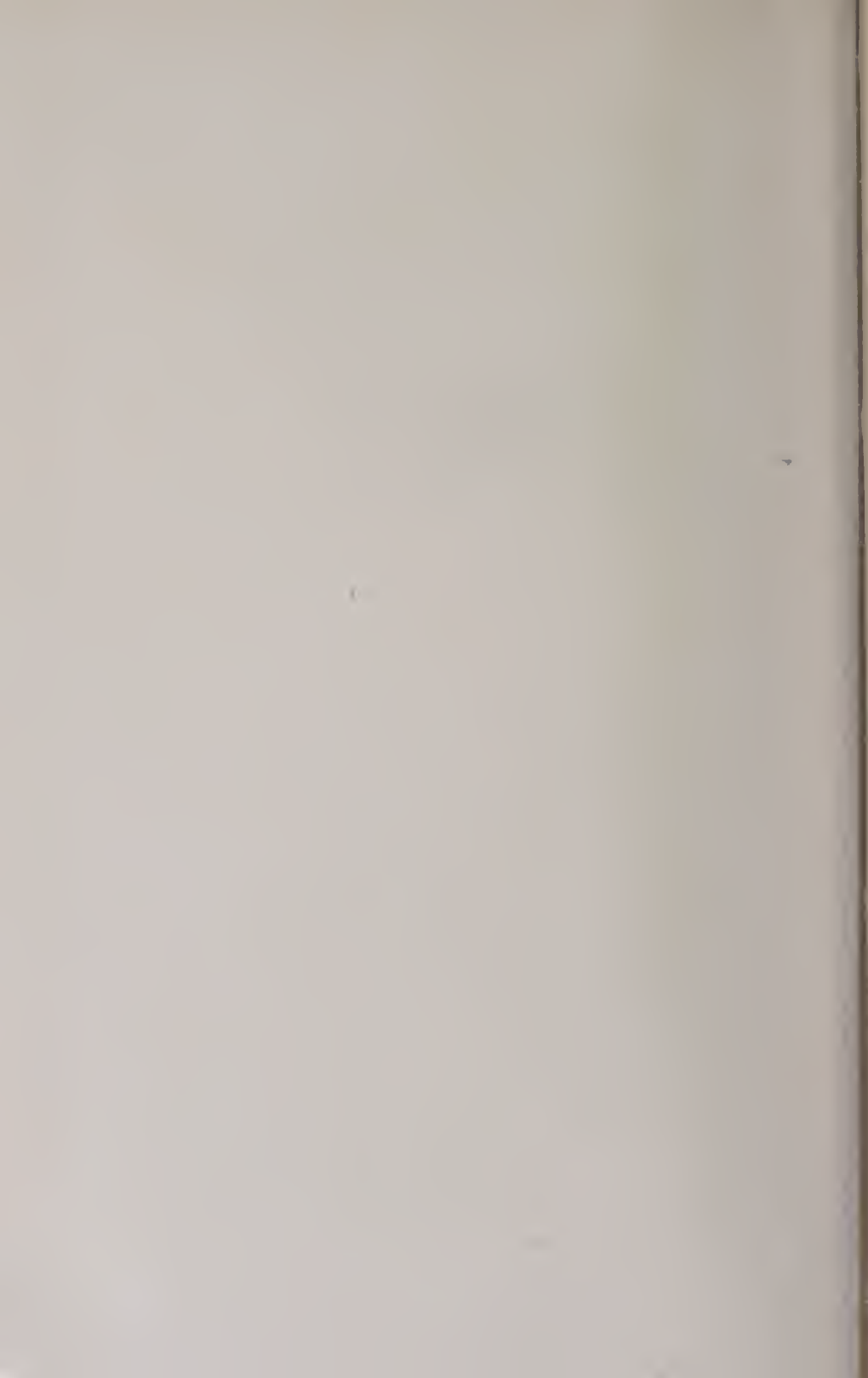
The Doulton ware, which has in recent years become so celebrated, is an English revival of the brown stoneware of Germany and Flanders. The most characteristic, and certainly the most thoroughly artistic, style of decoration practised by the Doultons is that revealed in the designs scratched on the plain wet surface of the ware. Among the best artists in this line of work is Miss Hannah B. Barlow, whose etchings of animals were first seen in this country at the Philadelphia Centennial Exposition in 1876. Since then her work has become familiar to all lovers of art on



30. BROWN STONEWARE JUG (7 inches in height).  
Lambeth, England, about 1820.  
Lent by Mr. Edward Russell Jones.



31. DOUTON ART STONEWARE VASE (13 inches in height).  
Etched by Miss Hannah B. Barlow, Lambeth, 1876.  
Museum No. '97-509.



this side of the Atlantic. Her spirited renderings of horses, dogs, sheep and rustic life, in the fewest possible lines, are truly remarkable, and she has been placed by competent critics next to Rosa Bonheur as a delineator of animal life. Among other celebrated ceramic artists who have been employed at the Lambeth works may be mentioned Mr. George Tinworth, Mr. Arthur B. Barlow, Miss Florence Barlow and Mr. Frank A. Butler.

The Doulton art stoneware reveals a combination of several processes. Surrounding the zones or panels of scratched decorations, which are covered with salt glaze, are bands of colored enamels, outlined and carved designs and bossed or jeweled work. In the Museum collections are many fine examples of the best products of this factory, the majority of which were purchased at the Centennial Exhibition, while others are of a more recent date. In this collection, Miss Hannah B. Barlow and Mr. George Tinworth are well represented (see No. 31). A pair of large modeled and jeweled garden vases, four feet in height, are perhaps the most elaborate and striking pieces in the collection.

### III. STONWARE OF THE UNITED STATES.

Previous to the establishment of stoneware potteries in the American colonies, some of the earlier German and English settlers brought with them to this country utensils of salt glazed earthenware, some of which were used in barter with the Indians, and a few of these have been found in aboriginal graves. In Lancaster County, Pa., a brown stoneware Bellarmine jug, eight inches in height, of the Frechen type, has been taken from a Conestoga Indian grave of the period of about 1750, having been brought to this country during the German immigration. Similar examples have been found with native remains in New York State, one of which is in the possession of Mr. S. L. Frey, of Palatine Bridge, N. Y. This is a large one-handled cup of grey stoneware, embellished with figures of animals in blue, a curious example of Grenzhausen ware, belonging to the latter half of the seventeenth century.

A two-handled cup, of English white salt glaze, of the eighteenth century, was obtained from a burial place in the same State.

Mr. W. L. Calver, who has investigated the sites of Revolutionary encampments in the vicinity of New York City, has found numerous fragments of plain white salt glaze and scratch blue ware

among the debris of English military camps of about 1780, together with many white clay pipe bowls, bits of vessels of Leeds cream-ware, black basalt ware of Wedgwood and other English pottery of that period. The white salt glaze pieces are exceedingly thin and even in body, and were evidently made by the casting process. The fragments of scratch blue ware are rudely incised with conventional floral designs and "herring-bone" borders of a pale purplish blue color (see No. 24).

Salt glazed stoneware has been made in America since early in the eighteenth century. The first products were of a rude and simple character, in the forms of crocks and jars and other utilitarian articles, entirely devoid of ornamentation save an occasional dash of blue or, in exceptional cases, a few roughly incised ornaments. John Remmey, a German, established a pottery in New York City about 1735. His works were situated at Potter's Hill, near the old City Hall. On a map showing the plan of New York City in 1742, the pottery of Remmey & Crolius is marked. At a later date, John Remmey having died in 1762, the second partner, or possibly his son, appears to have carried on the business alone, as is indicated by a stoneware jug eleven inches in height, with two loop handles and a spout. The ware is of a rich brown color, with stamped and cobalt blue decorations. On the back is the inscription:—

New York, Feby 17th 1798

Flowered by

Mr. Clarkson Crolius.

Around the spout is a conventional design of leaves and flowers in blue, while similar embellishments adorn the body above the inscription (see No. 34). This pottery continued in operation until about 1820.

Late in the eighteenth, or early in the nineteenth, century Paul Cushman began the manufacture of salt glazed stoneware near Albany, N. Y. Numerous examples of his work have survived, several of them bearing the date 1809. The body is of a brownish tint and the decorations, which are usually scanty, are in cobalt blue. In many instances the name of the maker is scratched on the sides of jars, and occasionally inscriptions are found (see No. 32).

Other stoneware potteries were in operation in the United States previous to the nineteenth century. At Norwalk, Ct., salt glazed





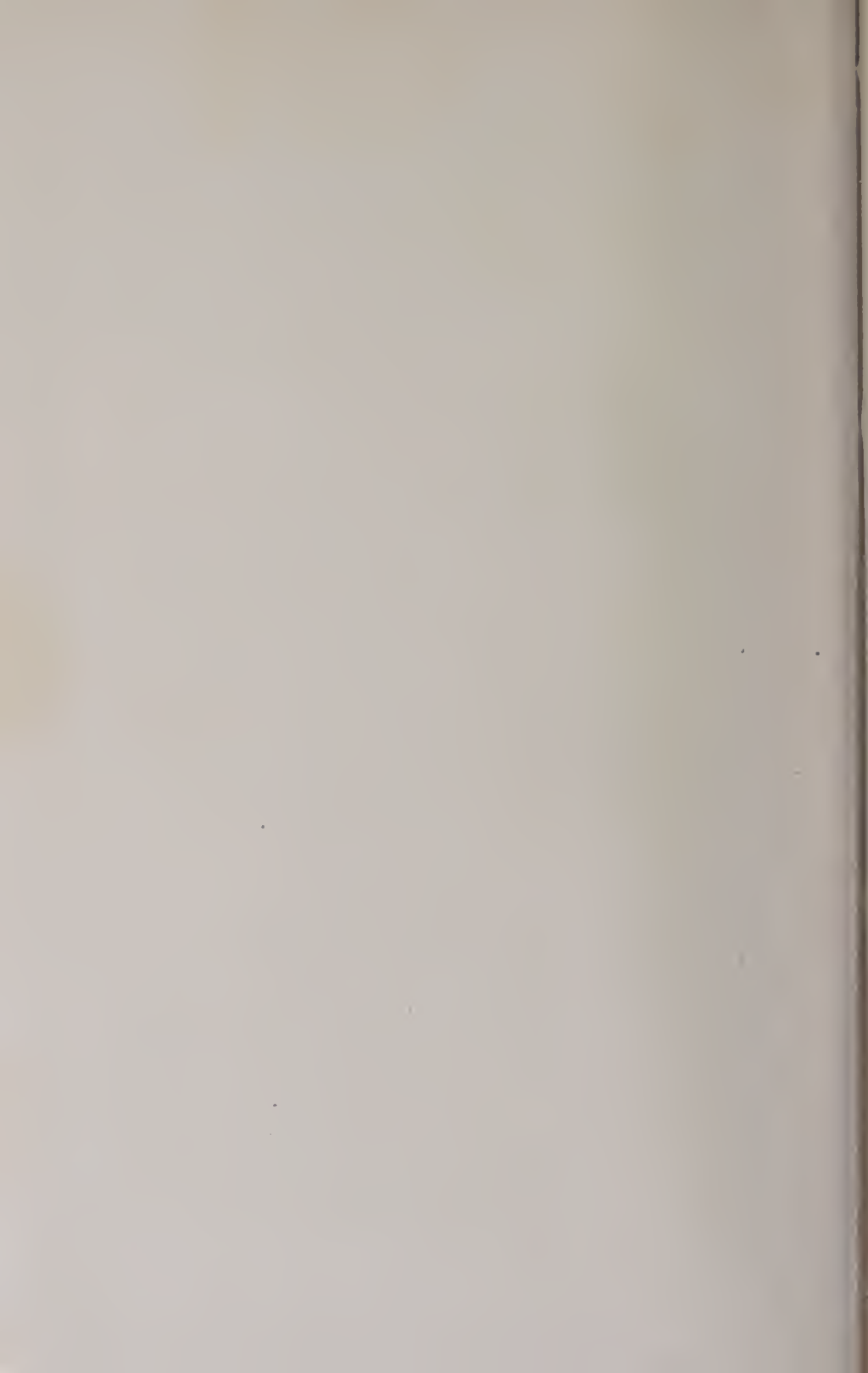
32. BROWN STONEWARE JAR (13½ inches in height).  
Cobalt Blue Decoration.  
Made by Paul Cushman, Albany, N. Y., 1891.  
Museum No. '01-8.



33. GREY STONEWARE FOUNTAIN (2 feet in height).  
Modeled, Inlaid and Blue Enamel Decoration.  
Made by Solomon Bell, Strasburg, Va., about 1845.  
Museum No. '00-93.



34. BROWN STONEWARE JUG (11 inches).  
Cobalt Blue Decoration.  
Crolius Pottery, New York, 1798.  
Owned by Mrs. L. B. Caswell, Jr.



ware was being produced in 1780. At Morgantown, W. Va., and Huntington, N. Y., grey stoneware with blue decorations was made about 1800. John and William Norton, at Bennington, Vt., were turning out stoneware about the same time, while at Norwich, Ct., similar ware was manufactured a few years earlier. At Utica, N. Y., a pale greyish stoneware has been made, in decorated utilitarian forms, since about 1820.

The Pennsylvania Society for the Encouragement of Manufactures and the Useful Arts published the following advertisement in the *New Jersey Journal*, at Elizabethtown, in its issue of January 25, 1792:—

“1.—To such person as shall exhibit the best specimen of Earthenware or Pottery, approaching nearest to Queensware, or the Nottingham or Delf ware, of the marketable value of fifty dollars—a plate of the value of fifty dollars, or an equivalent in money.

“2.—To such person as shall exhibit the best specimen of Stoneware, or that kind of Earthenware which is glazed with salt, of the value of fifty dollars, a plate of fifty dollars' value, or that sum in specie.”

One of the conditions of this competition was that the ware should be made in Pennsylvania or New Jersey. We are not advised of the result of this announcement.

At Strasburg, Va., stoneware potteries were in operation previous to the beginning of the nineteenth century. Solomon and Samuel Bell, from Hagerstown, Md., established a stoneware pottery here about the year 1842. Among the best pieces produced during the early years of this factory is a large grey salt glazed stoneware water jug, or fountain, with handles modeled in the semblance of coiled serpents, and human masks, surrounded by impressed ornamental patterns. On the body are boldly painted tulip designs in rich cobalt blue, and the stamped mark of Solomon Bell (see No. 33). The pottery is still operated by the sons of the founders.

Charles Wingender & Brother are among the few potters in the United States who continue to produce the old-fashioned German grey salt glazed ware with blue and purple decorations. They served an apprenticeship in the potteries of Höhr, near Coblenz, and their productions are similar to the wares now made in that section.

Some of the old moulds which had been used in Germany

for a century or more are still in use at their establishment in Haddonfield, N. J., while many of their best designs are original. Their beer steins, jardinières, pedestals and water coolers are modeled after the old German forms, and compare favorably, both in decoration and in mechanical execution, with the modern imported ware of a similar nature. One of the most elaborate historical patterns which they have produced is a representation of the battle of Teutoberg Forest, which took place in the year 9 A. D., in which Quintilius Varus led the Roman troops against the Germans, the latter being victorious. In this engagement the Roman army was completely destroyed, and Varus perished by falling on his own sword. This spirited rendering was originally used at the Höhr pottery, but has been remodeled for the Haddonfield factory.

It was reserved for a woman, however, to breathe the breath of artistic life into the body of American stoneware, and under her deft touch, guided by refined instinct and inventive genius, the old utilitarian forms were converted into new and graceful shapes, and the crude blue coloring, which served for ornamentation, gave place to artistic designs in relief, always significant, harmonious and thoroughly appropriate. The honor of raising the humble manufacture of salt glazed ware in this country to a place beside the finer ceramic arts belongs to Mrs. S. S. Frackelton, formerly of Milwaukee, but now of Chicago. A fine example of her work is a large jar, now in the Museum collection, which was purchased at the Chicago Exposition in 1893. It is two and a half feet in height, of the ordinary grey color, supported by winged feline feet and ornamented with fruited olive branches in high relief and rich blue coloring.

Salt glazed stoneware is manufactured extensively at the Charles Graham Chemical Pottery Works, Brooklyn, N. Y. Mr. Charles C. Benham, who for more than twenty-five years has been carving and coloring designs in this body, has executed many beautiful pieces at these works, in a style not attempted elsewhere. The surface of the ware is carved in artistic patterns in low relief, colored with a rich, deep blue and covered with salt glaze. His most recent pieces, such as drinking mugs, jugs and vases, are made of fine white clay. He has also produced some large panels with painted decorations in cobalt color, in the style of Holland Delft.

The stoneware of the United States shows the influence of the

Rhenish potters. The imitation of the white salt glaze of England was never attempted in this country, so far as we are aware, unless, indeed, it should hereafter be demonstrated that the "white and chiney" ware which was manufactured at Burlington, N. J., between 1685 and 1691, by the agents of Dr. Daniel Coxe, of London, Proprietary and Governor of the Provinces of East and West Jersey, was in reality similar to the white stoneware produced by Thomas Miles, of Shelton, England, about the same time. It is within the range of probability that this first American white ware was glazed with salt, but thus far no pieces have been recognized. If any examples have survived to the present day, they must be sought for in the islands of Jamaica and Barbadoes, to which points, according to Dr. Coxe's statements, the greater portion of the output was shipped.



RECAPITULATION OF PRINCIPAL FEATURES OF SALT GLAZED STONWARE.

COUNTRIES.	BODY.	GLAZE.	DECORATION.	SHAPES.
GERMANY, FLANDERS.	White, dirty, white or greyish white.	Very thin, glossy in patches or entirely absent.	Moulded in medallions or sheets and applied Scriptural and heraldic subjects. Dates, XVI century.	Tall, cylindrical flagons, globular and bluster-shaped jugs, etc. Hand-finished at base, often cramped.
Heeren .....	Yellowish or brown.	Red brown, metallic, heavy and smooth, often shaded or yellowish in places.	Round and applied. Grottesque masks, imitation coins, foliage and scroll-work.	Greybeards and jugs. Wire markings on base.
Frechen .....	Brown.	Rich brown, heavy in places, accumulated or flecked in patches, Thin and slightly glossy. Dark brown, of uniform color.	Applied reliefs, figures of Apostles, buns, cherubs' heads, grapes, etc. Large, unglazed circles on base. Later period, reliefs of apocryphal heads, hunting scenes, geometrical patterns, covered with colored enamels and frequently gilded. Dates of XVII century.	Mugs, jugs, beakers, vases, ewers, Steigbügel and Kaeren forms, ring bottles, reproductions of lower end.
Kreussen .....	Dark rusty brown.	Thin and slightly glossy. Dark brown, of uniform color.	Applied reliefs, figures of Apostles, buns, cherubs' heads, grapes, etc. Large, unglazed circles on base. Later period, reliefs of apocryphal heads, hunting scenes, geometrical patterns, covered with colored enamels and frequently gilded. Dates of XVII century.	Mugs, jugs, beakers, vases, ewers, Steigbügel and Kaeren forms, ring bottles, reproductions of lower end.
Alteuburg .....	White or yellowish.	White and regular. Frequently covered with a thin wash of thin enamel.	Small applied floral reliefs, frequently in bands. Usually mounted in bands. Usually foot and cover.	Mugs, jugs, etc.
Bouffoux .....	Brown; later, grey.	Brown, irregular, in patches.	Crude, moulded masks, medals, lions, etc., in Frechen style.	Jugs, Greybeards, large and small, barrels, rude kitchen utensils, Handles frequently terminating at lower end in points, or "izard's tails."
ENGLAND.				
Engham .....	Brown and grey.	Rich brown, mottled or flecked where color has accumulated, the Frechen ware. Later, grey grams, etc. Later, blue and purple enamels in Grenzhausen style.	Applied reliefs, and scratched ornaments, masks, arms, moulded and applied reliefs: cast style.	Figures and buns, imitating bronze, Greybeards, spherical jugs, etc., after Frechen forms, Mugs and globular jugs, in Grenzhausen manner.
Staffordshire .....	White, translucent in thin places.	Rather heavy, granulated and moulded and applied reliefs: cast style.	Moulded and applied reliefs: cast style.	Plates, dishes, teapots, bottles, jugs, figures, table services, etc.
Nottingham .....	Yellow.	Smooth, red brown, metallic, not granulated.	Smooth, red brown, metallic, not granulated.	Mugs, jugs, two-handled cups, beer jugs, etc.
Lambeth .....	Yellow.	Upper part brown, lower portion buff.	Applied reliefs, hunting and drinking scenes, in buff clay.	Jugs with pined lips, loving cups, mugs, etc.
Doulton .....	Yellow.	Layers of salt glaze and sections of plain enamel.	Flecked or scratched under salt glaze: combination of enamel bands, jeweled or bossed work, in various colors.	Jugs, jars, tankards, mugs, crocks, showing Frechen and Grenzhausen influences.
UNITED STATES.	Brown or grey.	Brown and bluish grey. Heavy, uniform and distinctly granulated.	Flecked and cobalt blue designs, generally excellent. Applied reliefs, in various colors.	

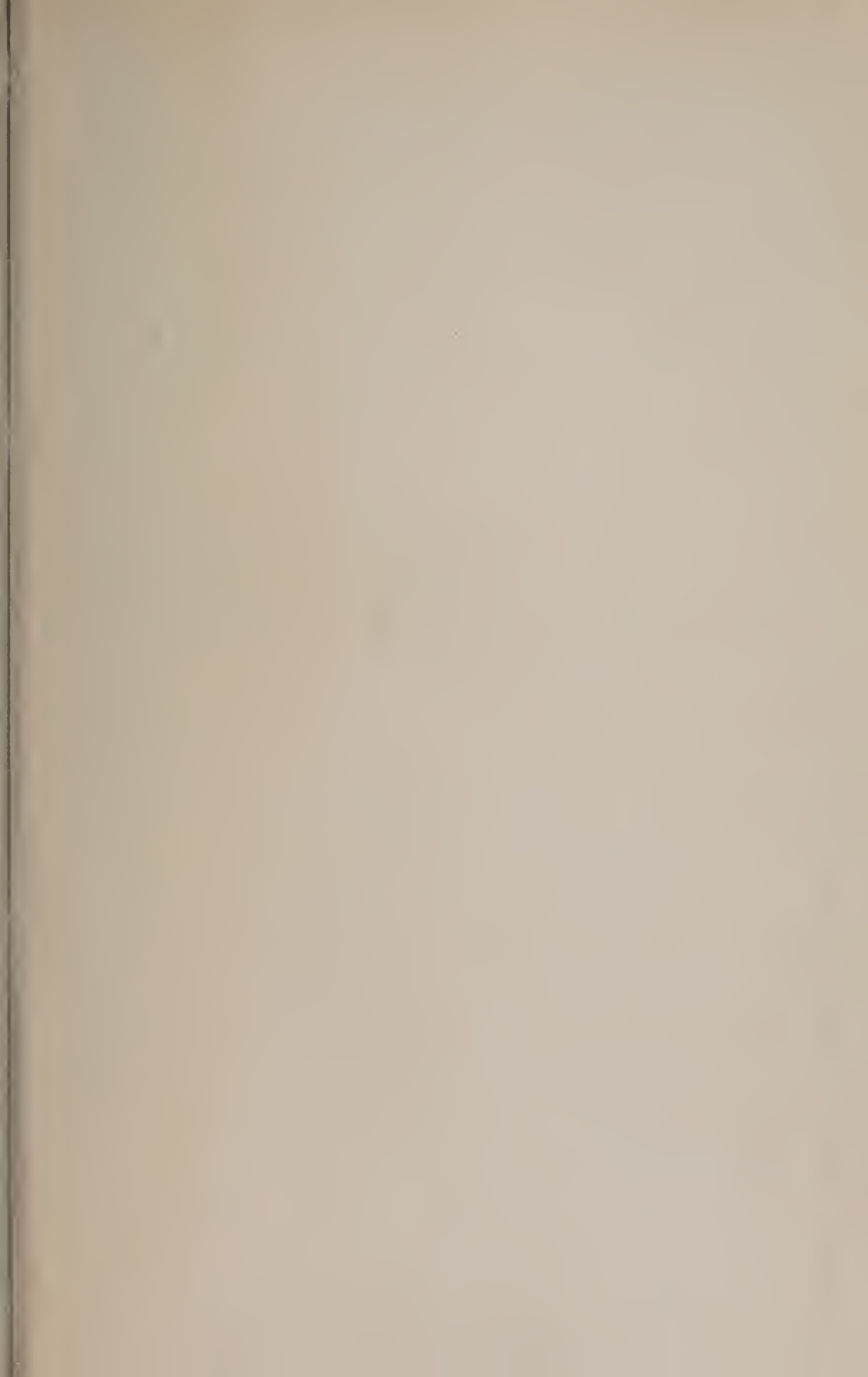




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