

April 21, 1925.

A. HANSEN

1,534,780

APPARATUS FOR MAKING PORCELAIN LEGS

Filed April 22, 1924

2 Sheets-Sheet 1

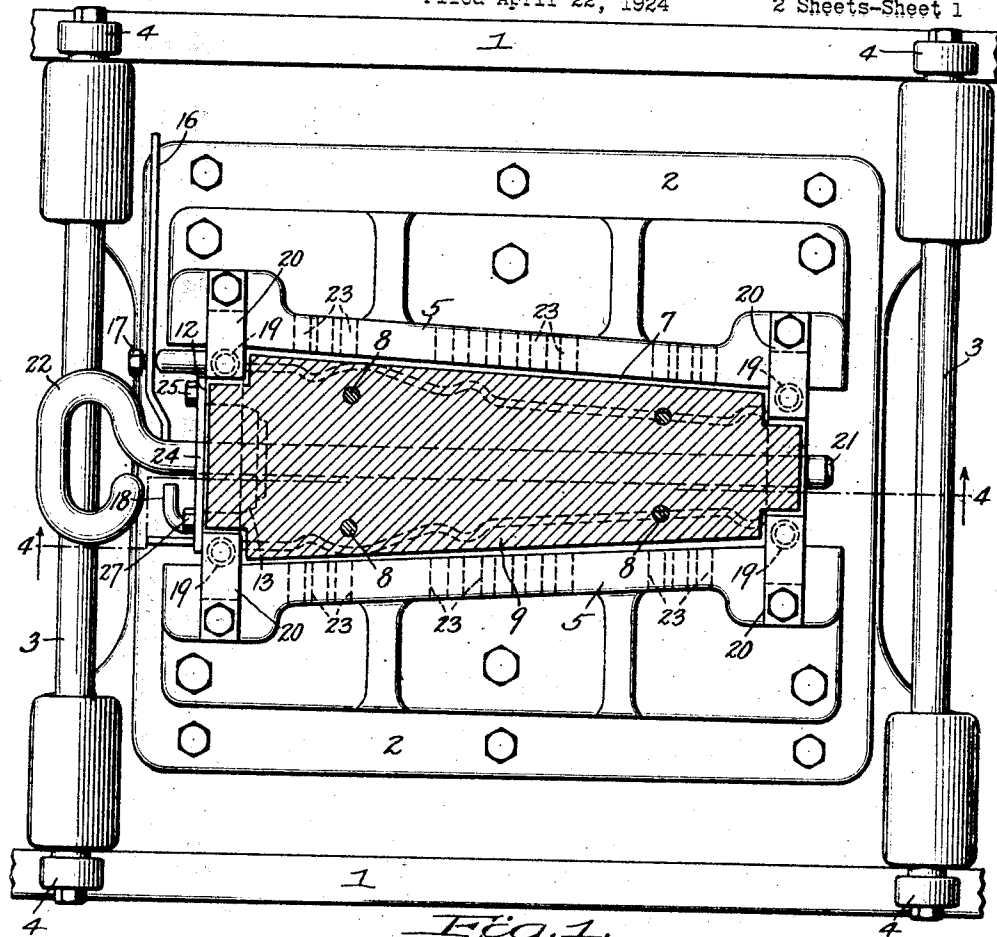
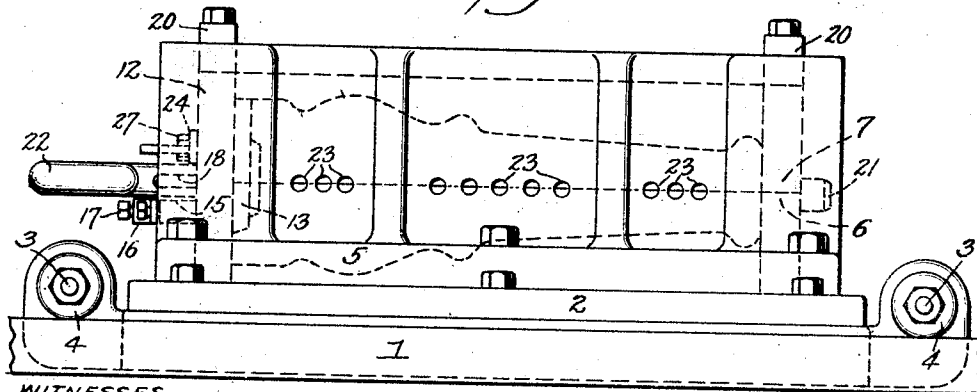


Fig. 1.



WITNESSES

Olin H. Holmes

Fig. 2.

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April 21, 1925.

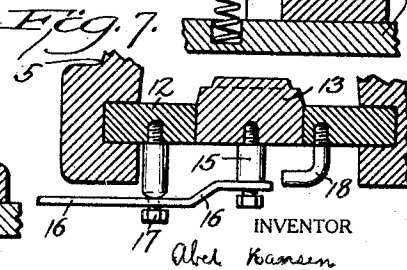
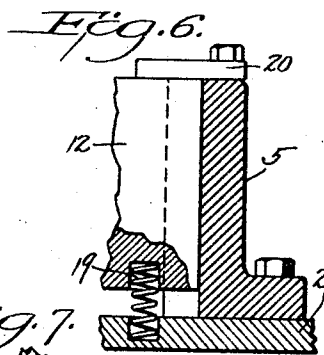
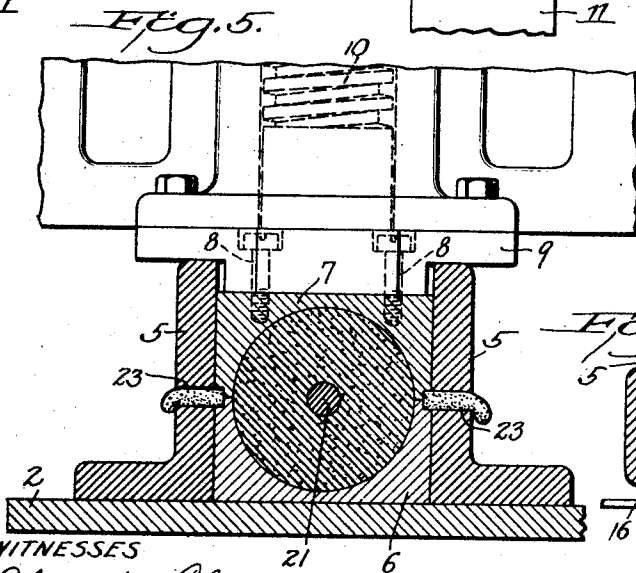
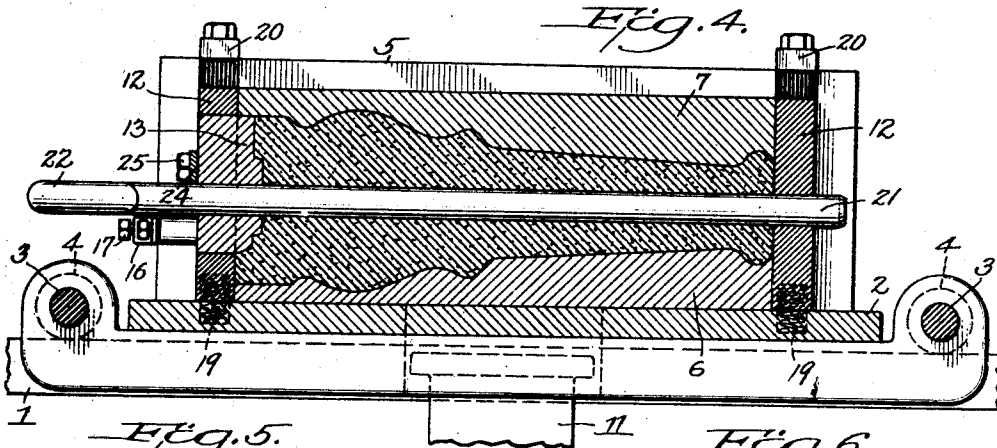
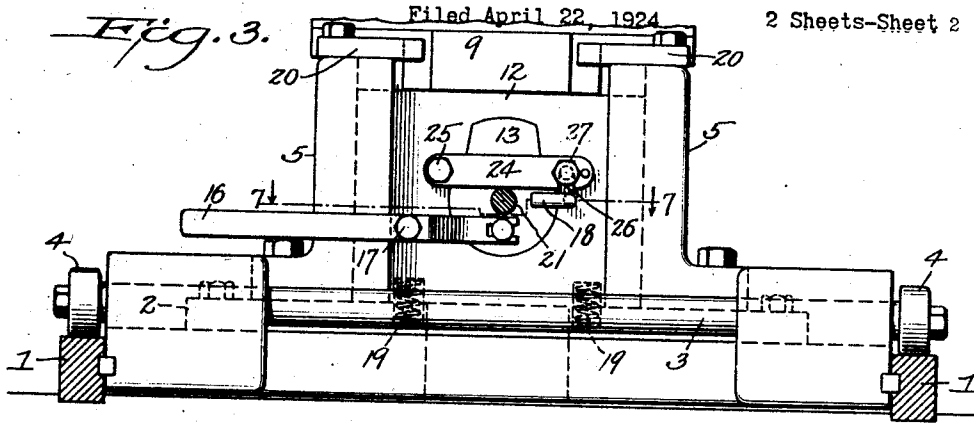
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2 Sheets-Sheet 2



WITNESSES

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Patented Apr. 21, 1925.

1,534,780

UNITED STATES PATENT OFFICE.

ABEL HANSEN, OF METUCHEN, NEW JERSEY.

APPARATUS FOR MAKING PORCELAIN LEGS.

Application filed April 22, 1924. Serial No. 708,180.

To all whom it may concern:

Be it known that I, ABEL HANSEN, a citizen of the United States, and a resident of Metuchen, county of Middlesex, State of New Jersey, have invented certain new and useful Improvements in Apparatus for Making Porcelain Legs, of which the following is a specification.

In making porcelain legs used to support porcelain tubs, basins and the like, the clay has been molded mostly by hand, involving not only considerable hand labor, but resulting in a non-uniform product.

The present invention is directed to the manufacture of such porcelain legs by molding them in a machine, whereby most of the labor is saved and an absolutely uniform product obtained.

The accompanying drawings illustrate an embodiment of the invention, in which

Figure 1 is a plan view of a mold.

Figure 2 is a side elevation of the same.

Figure 3 is an end view of the same.

Figure 4 is a longitudinal vertical section on line 4—4 of Figure 1.

Figure 5 is a transverse section through the mold, showing its relation to the molding press.

Figure 6 shows a detail of the end plates, and

Figure 7 shows a horizontal section on line 7—7 of Figure 3.

Referring to the drawings, 1 represents the lower platen of a press, upon which a traveling platen 2 is supported by means of shafts 3 and rollers 4, so that the same may be slid in and out of the press. Attached to the platen 2 are mold guides 5 which are preferably made to converge at one end to conform to the general taper of the leg to be molded. The mold proper consists of a lower half 6 and an upper half 7, the latter being secured by any suitable means as by bolts 8, to the plunger or upper platen of the press 9. The upper half is, therefore, raised and lowered with the platen when the latter is operated, for example, by a screw 10. The lower half 6 of the mold is not attached and can be pushed upward when the molding operation is completed and the mold moved out from under the press by means of a lifting plunger 11, which may be operated by any well known means. At the end of the side guides 5 are vertical slots, in which are slidably mounted end plates 12. These end plates are adapted to form the

molds for the ends of the leg and one of them has a slidable boss as at 13 for forming the usual pocket in the upper end of the leg. The boss is made slidable so as to be retractible to permit of the removal of the leg after molding. For this purpose it has a rear stud 15 with which a lever 16, loosely pivoted at 17, engages. By means of this lever, the boss can be withdrawn so as to permit the removal of the molded leg by the operator pressing inwardly on the outer end of the lever 16 until the boss comes in contact with a fixed stop 18. Springs 19 under the sliding ends, normally tend to hold the ends up against stops 20. The end plates have central orifices through which a core rod 21, having a handle 22, may be passed to form the central hole of the leg. As the springs 19 hold the end plates in a slightly elevated position, it results that the rod 21 will be held slightly above the central position of the mold. The object of this arrangement is to insure that the clay inserted in the mold will have a sufficient amount below the rod to entirely fill the lower half of the mold when the same is closed by the press. When the upper half of the mold descends upon the clay in the mold, the platen 9 impinges on the end plates 12 and pushes them down against the resilience of the springs 19, until the platen rests upon the side guides 5. The end plates will carry the core rod 21 down with them and when the upper and lower halves of the mold meet, the rod will be in the center of the molded leg. Orifices 23 in the side mold guides provide means for the escape of surplus clay when the two halves of the mold come together.

To hold the boss 13 securely in position while pressure is being applied to the mold, I provide a latch 24 pivoted on bolt 25 and provided with a slot 26, to enable its free end to engage behind the head of bolt 27.

The operation may be described as follows:—The upper platen of the press being in its upward position and the mold carrier withdrawn from under the same, the operator puts into the mold a lump of clay of approximately the amount required to make the leg, it being necessary always to have the clay slightly in excess of that which finally forms the leg. Before or after inserting the clay into the lower half of the mold, the rod 21 is inserted in place and the

mold, with its carrier, moved into the press against a suitable stop. The upper platen of the press then is made to descend, pushing the upper half of the mold into the guides 5, the platen depressing the end plates 12 and with them the core rod 21, until the parts assume the position shown in Figures 4 and 5, surplus clay, if any, being forced out, as shown in Figure 5. The core rod 21 is then withdrawn. The upper platen of the press being again raised, carrying with it the upper half of the mold 7, the mold, with its carrier, is then moved from under the upper platen until it comes against a suitable stop where it registers, so that the lifting platen or plunger 11 registers with a hole in the bottom of the carrier immediately under the lower half of the mold, as shown in Figure 4. The boss 13 is then withdrawn by the operator pushing on lever 16, the latch 24 having been thrown open. The molded leg may now be raised by the plunger 11 pushing up on the lower half of the mold until a position is reached where the operator can easily remove the leg from the mold. This is done by inserting his fingers or wooden pins into the central cored hole and lifting the leg free of the lower half.

I claim:—

1. In a mold for forming porcelain legs in combination, a lower and an upper half, side guides in which said halves have vertical play, and end plates slidable on the side guides and having central orifices for holding a core rod.

2. In a mold for forming porcelain legs in combination, a lower and an upper half, side guides in which said halves have vertical play, end plates slidable on the side

guides and having central orifices for holding a core rod, springs for elevating said end plates and stops for limiting their upward movement.

3. In a mold for forming porcelain legs in combination, a lower and an upper half, side guides in which said halves have vertical play, end plates slidable on the side guides and having central orifices for holding a core rod, and orifices in the side guides registering with the median line between the upper and lower halves to provide an outlet for the surplus material.

4. In a mold for forming porcelain legs in combination, a lower and an upper half, side guides in which said halves have vertical play, end plates slidable on the side guides and having central orifices for holding a core rod, and an end forming boss slidable through one of the end plates to form a recess in the top of the leg.

5. In a mold for forming porcelain legs in combination, a lower and an upper half, side guides in which said halves have vertical play, end plates slidable on the side guides and having central orifices for holding a core rod, an end forming boss slidable through one of the end plates to form a recess in the top of the leg, and means for locking said boss.

6. In a mold for forming porcelain legs in combination, a lower and an upper half, side guides in which said halves have vertical play, end plates slidable on the side guides and having central orifices for holding a core rod, an end forming boss slidable through one of the end plates to form a recess in the top of the leg, means for locking said boss and means for retracting the boss.

ABEL HANSEN.