

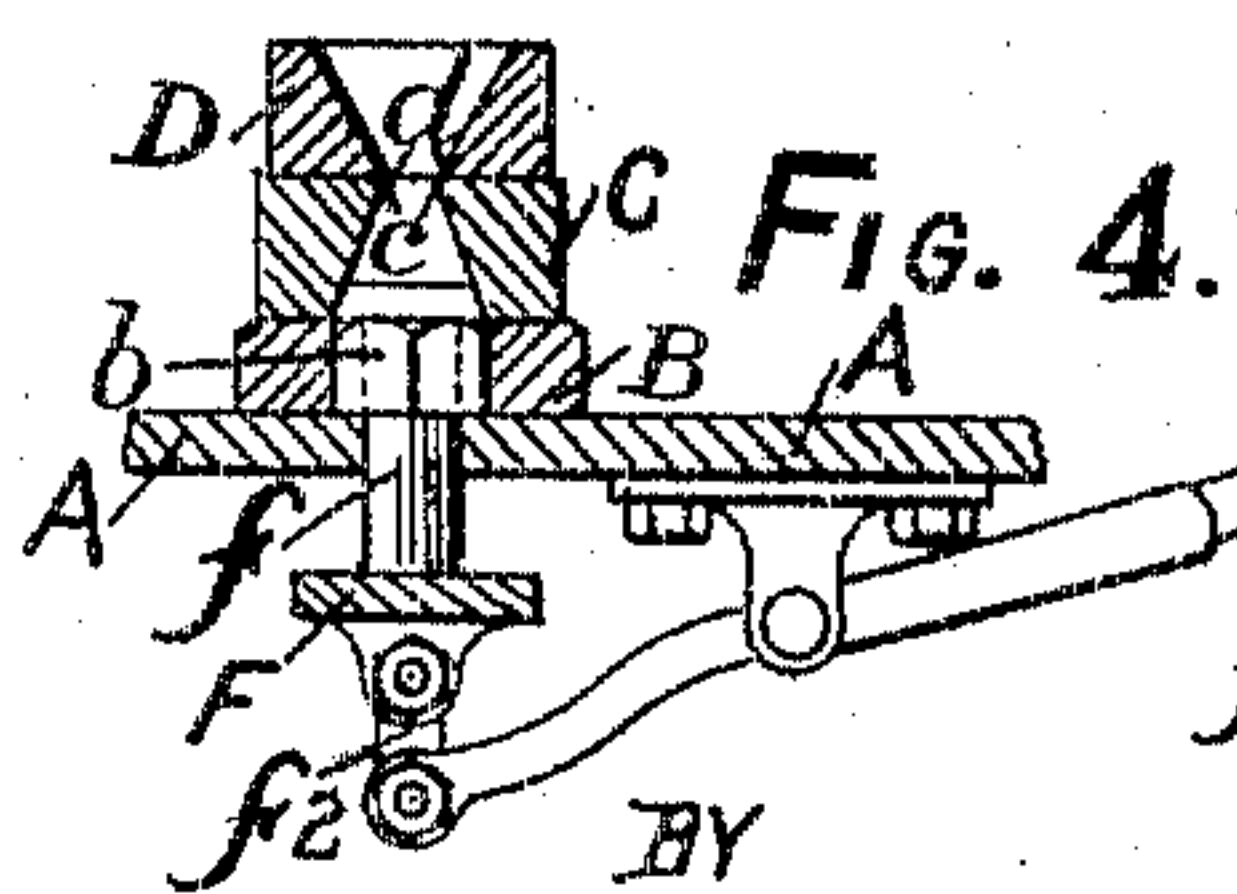
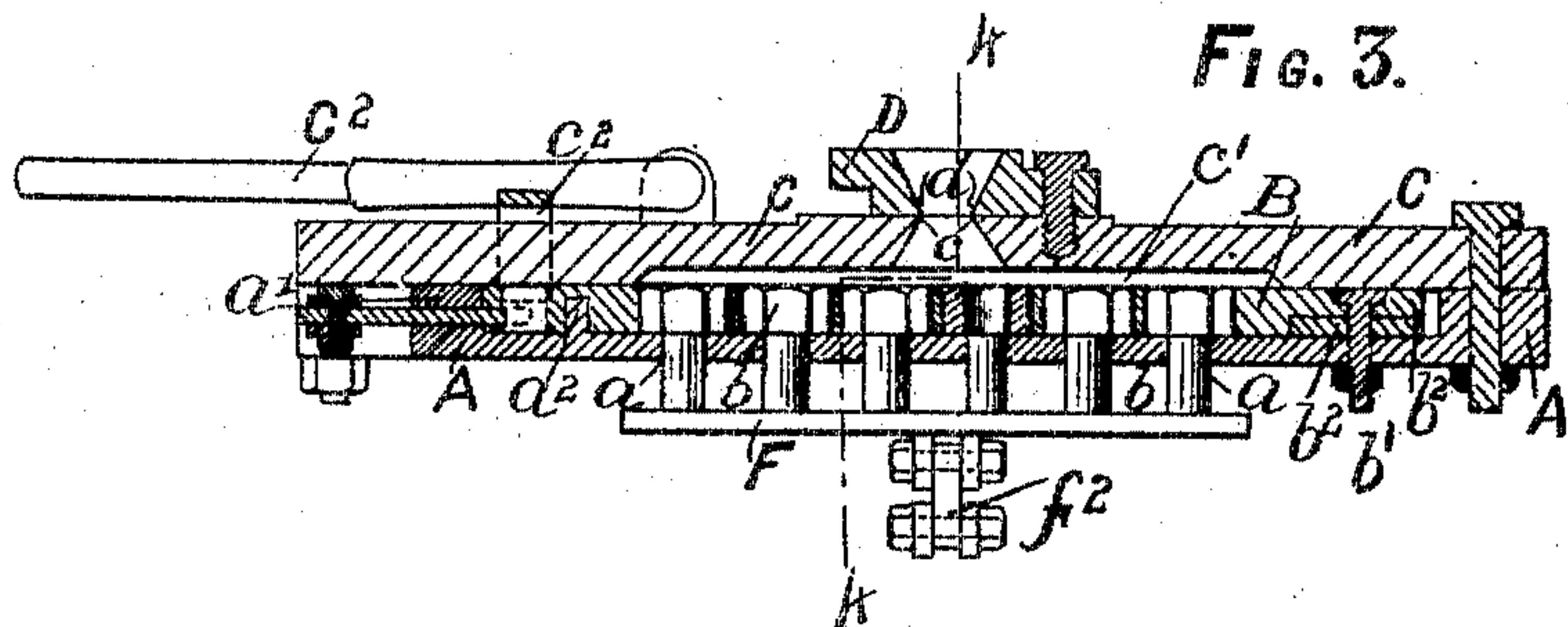
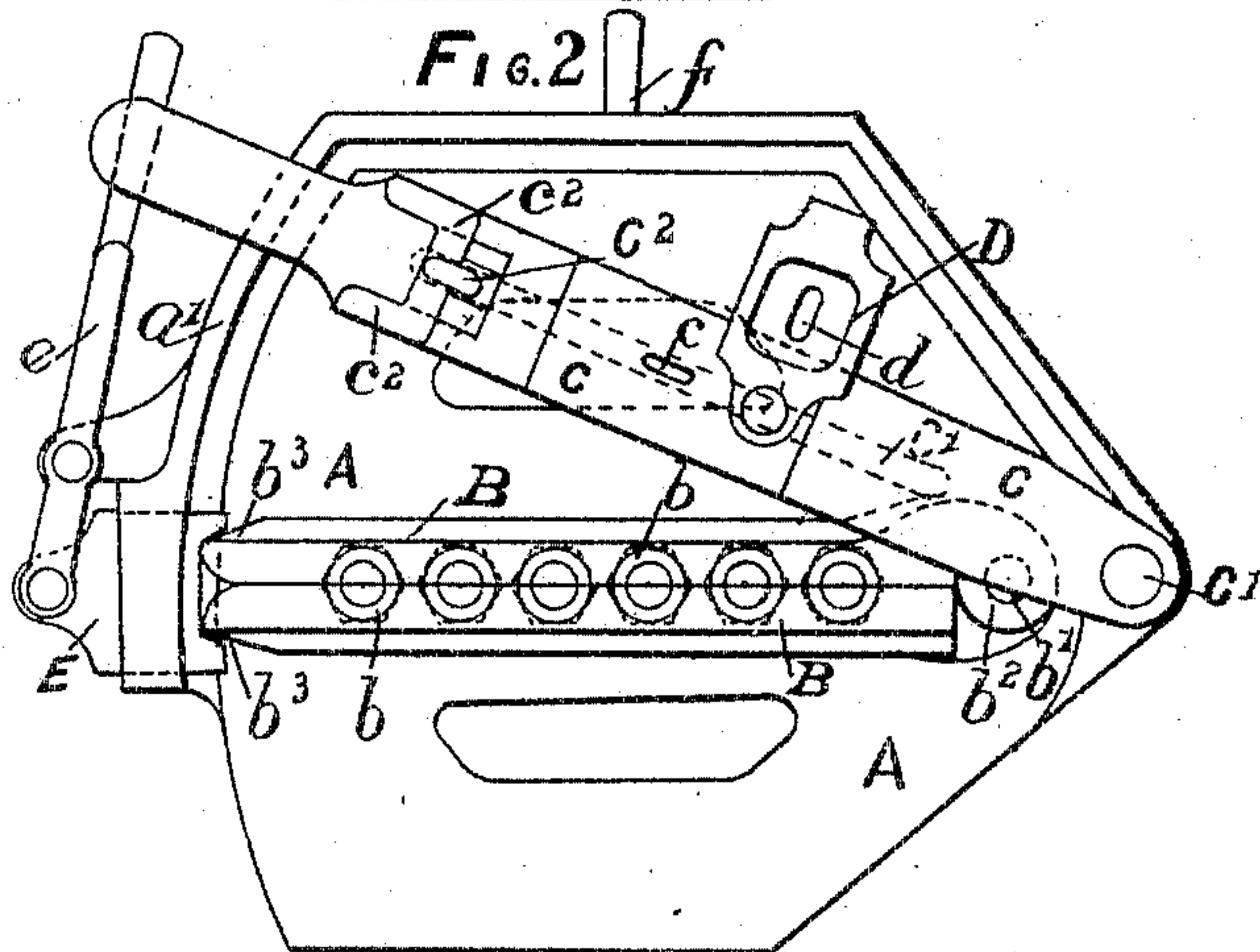
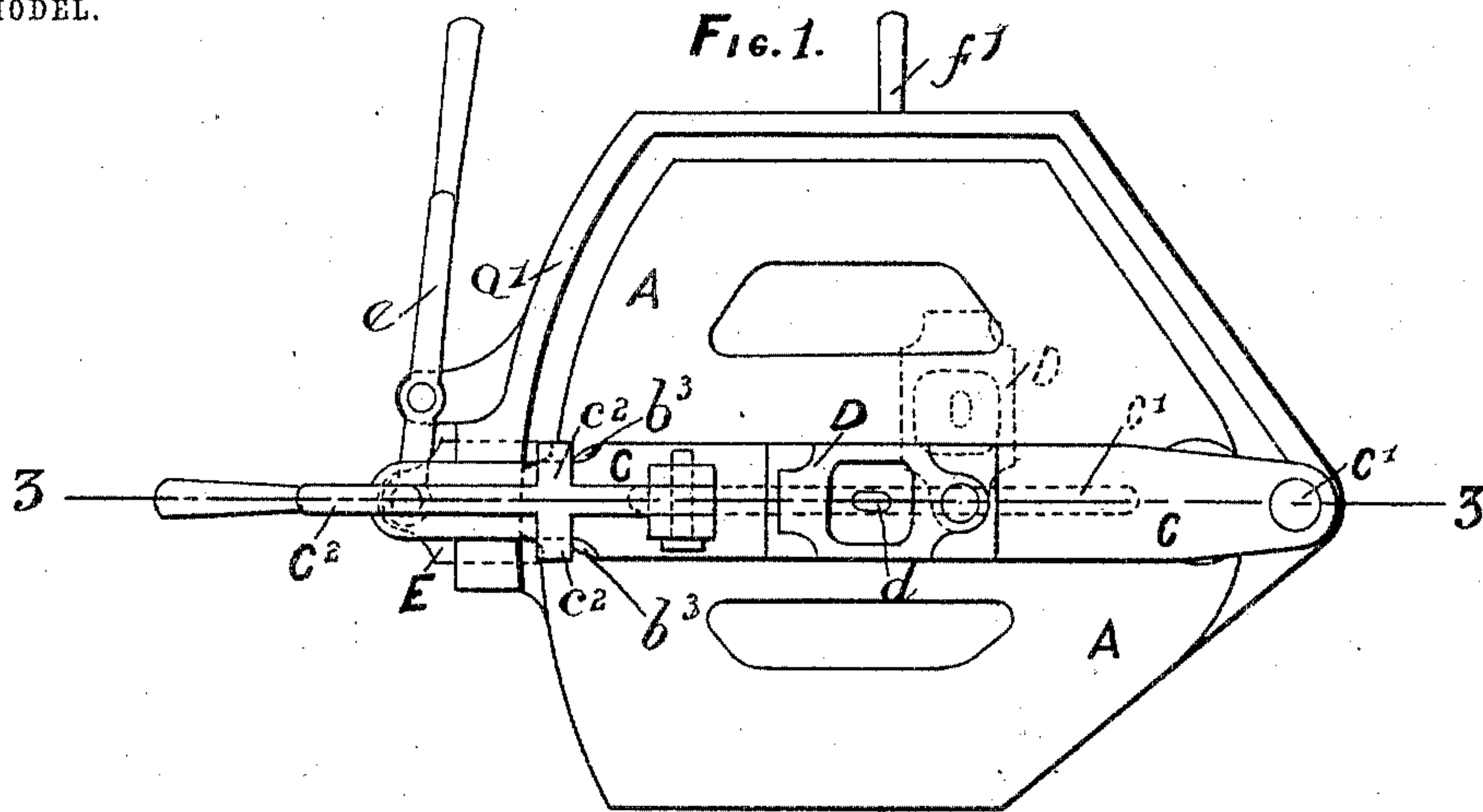
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J. BONE & M. REID.
MOLD FOR NUTS OR LIKE ARTICLES.

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NO MODEL.



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MOLD FOR NUTS OR LIKE ARTICLES.

SPECIFICATION forming part of Letters Patent No. 775,795, dated November 22, 1904.

Application filed June 7, 1904. Serial No. 211,527. (No model.)

To all whom it may concern:

Be it known that we, JAMES BONE, merchant, and MORRIS REID, engineer, subjects of the King of Great Britain and Ireland, and residents of Glasgow, Scotland, have invented a certain new and useful Improved Mold for Nuts or Like Articles, of which the following is a specification.

The object of our invention is to improve and simplify the construction of molds for casting nuts or like articles.

In order that others skilled in the art to which our invention relates may understand the nature of same, we have hereunto appended one sheet of illustrative drawings, in which—

Figures 1 and 2 are plan views illustrating a chill or mold-box for casting a number of nuts at one operation constructed in accordance with our improvements and showing the working parts in different positions. Fig. 3 is a sectional elevation on the line 3 3 in Fig. 1, and Fig. 4 is a partial sectional elevation on the bent line 4 4 in Fig. 3.

According to our improvements the chill, as illustrated by the drawings, is formed of three main plates A, B, and C. One of these plates, B, to be used as the center one, is in this case divided into two parts and formed with a series of openings or molds b of the size and shape of the nut to be cast, the thickness of the plate B being arranged to suit the size of nut. Holes or openings a of the same diameter as that of the holes in the nuts are formed in another plate, A, at distances apart to coincide with the holes b in the center two-part plate B, and this plate A is placed below the center plate B, which is hinged to it by the bolt b' passing through the eyes b^2 , and when the two parts of the plate B are closed together on same they are secured by clamping. A stud a^2 is fitted to act as a stop and guide.

For casting nuts or like hollow articles a plate F is fitted below the lower plate A, having studs f to enter the holes a in said plate. By depressing the hand-lever f' and raising the link f^2 these studs f are made to rise through the holes in the plate A to the position shown in dotted lines in Fig. 4 to form

cores for the nuts. When the metal is run into the molds, the hand-lever is elevated and the studs f withdrawn before the cooling metal binds on them. By the method of effecting the clamping illustrated by the drawings the clamp E passes through a slot in the flange a' of the plate A and is formed at its inner end as a jaw to engage with the beveled free ends b^3 of the two parts of the plate B and hold them secure against movement, the clamp being actuated by the hand-lever e . The third or upper plate C is pivoted on the bolt C' and carries the gate D for pouring in the metal fitted to swivel on it, and there may be any desired number of these to suit the number and arrangement of holes in the center plate B, which may in some cases be divided into more than two parts to provide for more than one row of molds.

As illustrated by the drawings, the pouring-gate D is a block pivoted on the plate C, which has a small opening c , coinciding with the hole d in the bottom of the pouring-gate D. A duct c' is formed in the plate C from the gate to the various holes b in the center plate B to convey the metal thereto. The upper plate C is pivoted on the bolt C' and is made to slide upon the plate B and on the flange a' of the lower plate A by means of the hand-lever C^2 , so as to separate the metal in the duct c' from that which has been run into the molds while it is still hot. When in position for pouring the metal, the upper plate C is held in position by clamping. The hand-lever C^2 is pivoted on the plate C and is formed with prongs or projecting bent arms c^2 , which engage with the ends of the center plate B and hold the plate C in line with same. The hand-lever C^2 is shown in Fig. 1 in its lowered position and in Fig. 2 in its raised position to allow the plate C to slide on the center plate B. The hand-lever f' may be held in position by any ordinary ratchet or like device.

In casting nuts or like hollow articles with the mold-box as described the three plates A, B, and C are placed in line and clamped together, as shown in Figs. 1 and 3, and the metal run in by the gate D, which is immediately oscillated to the position shown in

dotted lines in Fig. 1, to break the metal away from the plate C. The upper plate C is also immediately made to slide upon the center one, B, by oscillating it to the position shown in Fig. 2 to break the metal of the casting away from that of the duct c' . The two parts of the center plate B are then oscillated apart or turned back on their pivot b' to allow the nuts to be dropped or removed out of the molds.

The chill is shown as arranged for the casting of six nuts at one operation; but the number of nuts may be any suitable number, and in some cases gates for pouring the metal may be formed in the two-part plate B. Other hollow articles of a like nature may be cast in a similar manner.

The mold-box or chill may be portable or be secured on any suitable standards or foundation.

Having now described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. Chills, or mold-boxes, comprising a plate A having openings, a two-part plate pivoted thereto and molds in said two-part plate adapted to be placed in line with said openings and secured by clamping, a cover-plate also pivoted and having a duct for the flow of metal to the openings in the two-part plate,

a pair of bent arms to lock the cover-plate to the two-part plate in combination with studs projecting upwardly from the openings in the plate A and means to project and withdraw said studs into and from the openings in the two-part plate, substantially as described.

2. Chills or mold-boxes for casting nuts or the like, comprising a plate A having openings therethrough, studs fitting said openings and means for projecting said studs upwardly above the surface of said plate and for withdrawing them from said projected position, a two-part plate B having openings in line with said studs, and a cover-plate and duct on the under side thereof for supplying metal to said two-part plate, the walls of the openings in said two-part plate surrounding said studs while in their projected position, so as to leave a space between each stud and said surrounding walls for the flow of metal which is to form nuts, or the like.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JAS. BONE.
MORRIS REID.

Witnesses:

R. C. THOMSON,
J. B. BROWNLIE.