

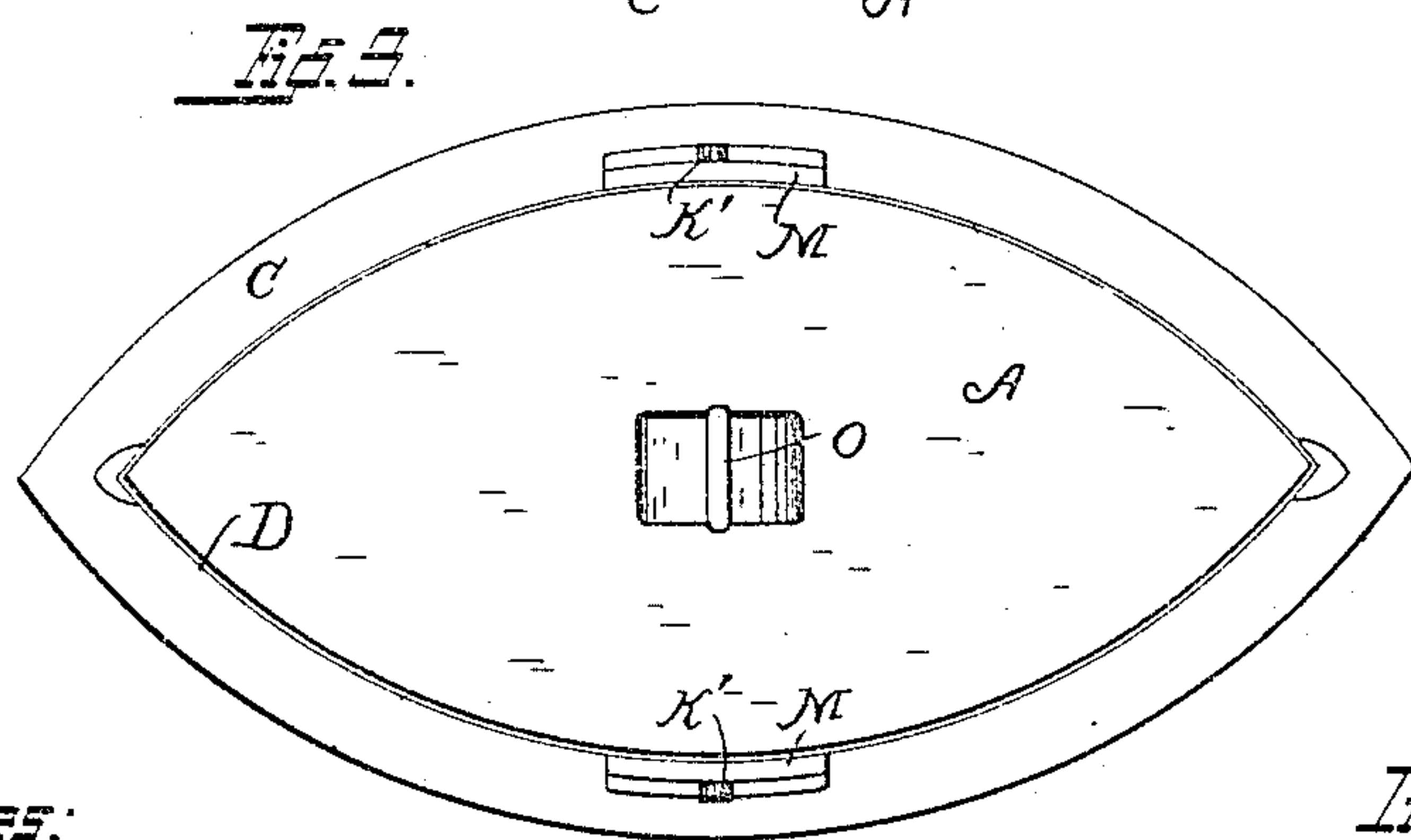
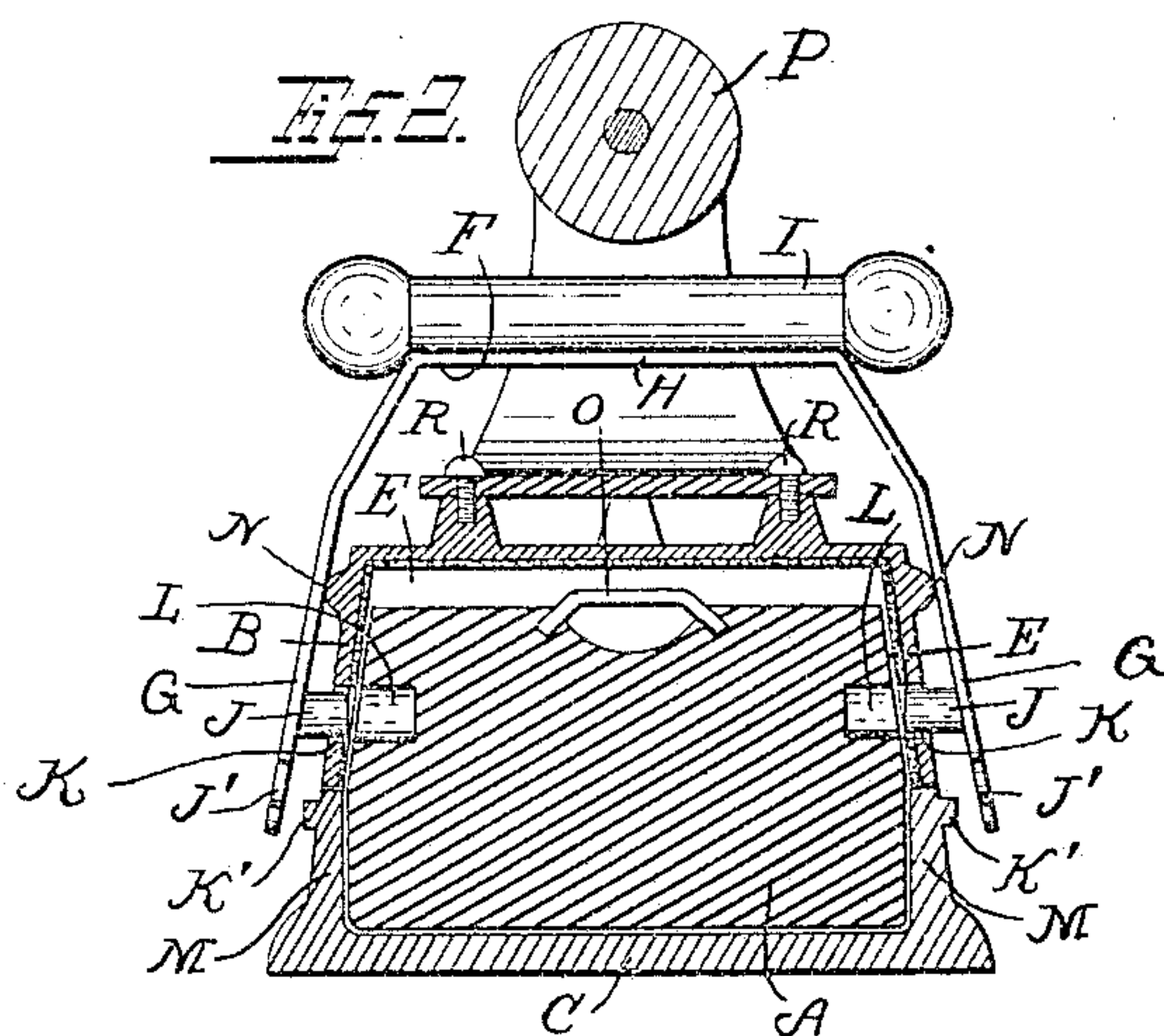
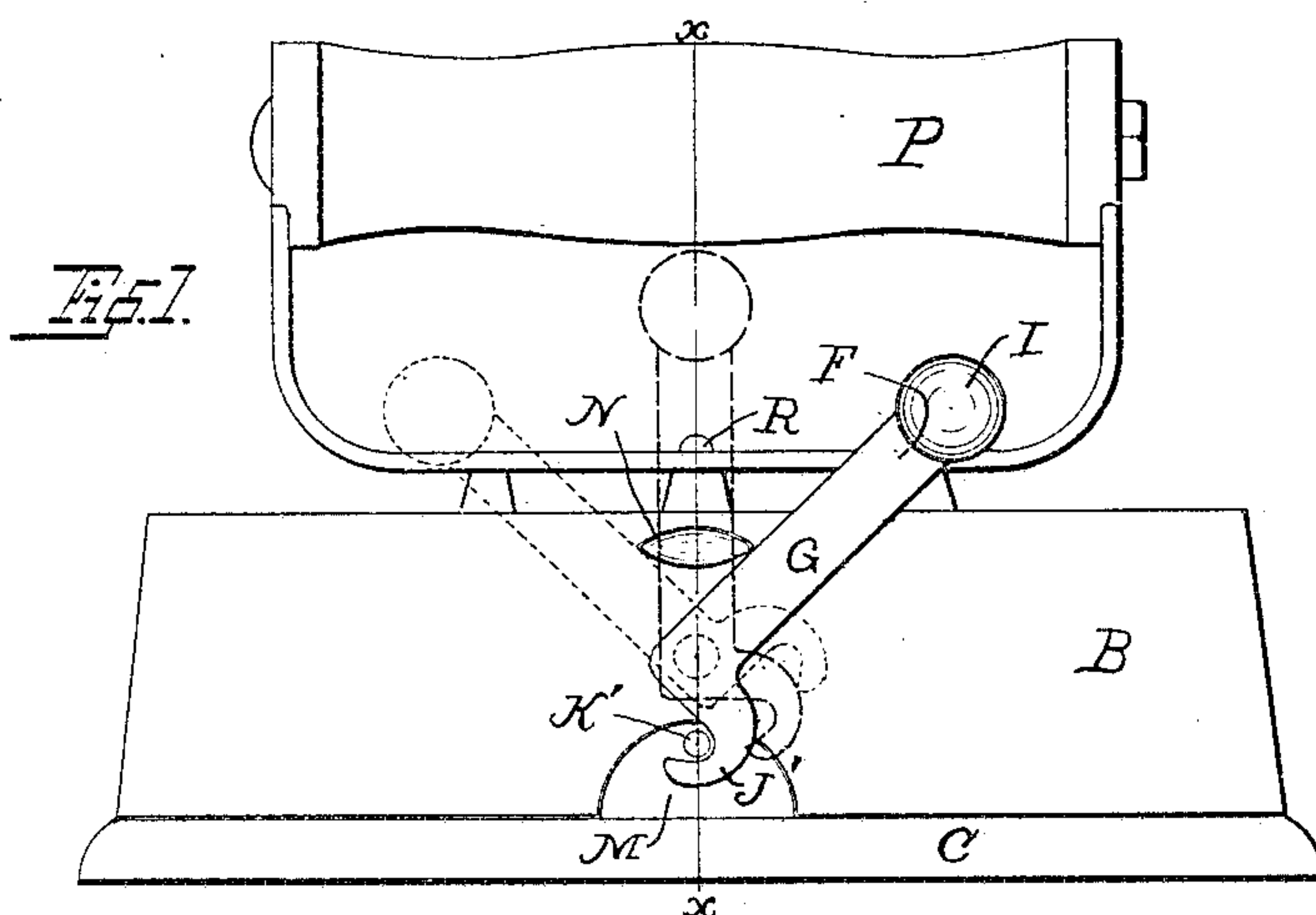
No. 787,316.

PATENTED APR. 11, 1905.

O. TVERDAHL.

SAD IRON.

APPLICATION FILED OCT. 18, 1902.



Witnesses:
F. A. Otto
C. L. Roesch.

Inventor

Ole Tverdahl

By

Ervin & Stulen
Attorneys.

UNITED STATES PATENT OFFICE.

OLE TVERDAHL, OF CANAL DOVER, OHIO, ASSIGNOR TO CHARLES T. JOHNSON, OF CANAL DOVER, OHIO.

SAD-IRON.

SPECIFICATION forming part of Letters Patent No. 787,316, dated April 11, 1905.

Application filed October 18, 1902. Serial No. 127,768.

To all whom it may concern:

Be it known that I, OLE TVERDAHL, a citizen of the United States, residing at Canal Dover, county of Tuscarawas, and State of Ohio, have invented new and useful Improvements in Sad-Irons, of which the following is a specification.

My invention relates to improvements in that class of sad-irons in which the core or body proper of the iron is surrounded by an inclosing shell and an intervening dead-air space or non-heat conductor—such as asbestos, mineral wool, &c.,—by which the radiation of heat from the core is retarded.

The object of my improvement is to provide a sad-iron of the class described in which the heating-core and smoothing-plate are formed of two separate parts, whereby the core may be separated from the smoothing-plate, as well as the inclosing shell, and placed in the fire-box or combustion-chamber of a stove or other heater in direct contact with the coal, or it may, if desired, be heated over an oil or gas stove in direct contact with the flame, regardless of the soot or dirt that might incidentally be brought in contact therewith, without injuriously affecting the smoothing-plate of the iron: also whereby said core may be heated to a red heat without liability of burning clothes or unduly heating the hand of the user.

My invention pertains, further, to the device by which the locking-arms may be caused to simultaneously engage in the heating-core and smoothing-plate while the iron is being used and also caused to engage the core alone when removing the same from the smoothing-plate to the stove, whereby the necessity of employing a separate hook for handling the core when the shell is removed is avoided.

The construction of my invention is further explained by reference to the accompanying drawings, in which—

Figure 1 represents a side view. Fig. 2 is a transverse section drawn on line *x x* of Fig. 1, and Fig. 3 represents a top view of the core and detachable smoothing-plate with the shell removed.

Like parts are identified by the same reference-letters throughout the several views. 50

A represents the core of the sad-iron.

B is the inclosing shell.

C is the detachable smoothing-plate.

The smoothing-plate C is provided around its marginal edge with a core-retaining flange D, which conforms in shape to the base of the core and serves to retain the same in place, while the upper surface of said flange serves as a base-bearing for the lower edge of the shell B, which is preferably made to closely fit against the same, so as to prevent the escape of the heated air from the space E between the shell and core. 60

The relative arrangement of the heating-core, the inclosing case, and the smoothing-plate is illustrated in Fig. 2. The locking mechanism by which such parts are secured together consists of a spring-clamp F, comprising two downwardly-extending arms G G and central portion H, formed integral. 70

I is an operating-handle.

The lower ends of the arms G are provided with inwardly-projecting trunnions J J and supporting-hooks J' J'. The trunnions J have pivotal bearings in apertures K K, formed in the sides of the case B, and their inner ends are adapted when locking said parts together to engage in the apertures L L, formed therefor in the vertical sides of the core A, while the hooks J' engage the lugs K', projecting outwardly from the sides of the standards M, which standards M are formed integral with the smoothing-plate C. When the clamp F is in the vertical position shown in Fig. 2, the trunnions J J are held out of contact with the core A by the two side projections N N, formed on the sides of the case. The trunnions and supporting-hooks are adapted to be thrown out of engagement with the core and the lugs of said standards when the elastic arms G are brought into contact with said projections or contact-bearings N. When, however, the clamp is inclined toward the right past the vertical, as shown in Fig. 1, so that the side arms G are brought out of contact with said projections N, said trun- 80 85 90 95

nions are thrown inwardly by the elasticity of said arms, when they engage in the apertures L L of said core, while the supporting-hooks J' J' engage beneath the lugs K' K', whereby said shell, core, and smoothing-plate are all locked rigidly together, when they are ready for use.

When the core has become cool and it is desirable to exchange it for a hotter one, the clamp F is first thrown toward the left, as indicated in dotted lines in Fig. 1, whereby the hooks J' are disengaged from the lugs K', while the trunnions J remain in engagement with the core, when the core may be removed with the shell from the smoothing-plate and placed upon the stove or other heater. This being done, the clamp F is again raised to the vertical, whereby the trunnions J are disengaged from the core, thus leaving the core upon the stove, when the shell is placed over another core and again thrown toward the left, whereby said trunnions engage in the recesses of the heated core, and the heated core is then removed from the heater and placed upon the smoothing-plate, when the handle is again thrown to the right, as indicated in Fig. 1, when all of said three parts are locked together as before.

A plurality of cores are preferably used with a single shell and smoothing-plate, so that one may be heated while the other is used. Each core is preferably provided with a lifting-bail O for the engagement of a lifting-hook, whereby the same is readily handled when placing it in or removing it from the combustion-chamber of a heater. P is the handle of the said iron, which is of ordinary construction and is rigidly secured to the top of the shell by screws R.

It will of course be understood that by the construction shown I am not only enabled to heat the core to a much higher temperature than could be used in direct contact with clothes, but I am thereby enabled to obtain such high temperature in a much shorter space of time by placing the core in the fire-box of a stove than it would be possible to heat the sad-iron upon the top of a stove, while owing to the fact that the core can be used much hotter than by other forms of construction in which the cores are brought in direct contact with the cloth the necessity of changing the sad-iron as frequently as before is avoided, while owing to the further fact that the core itself is never brought in direct contact with the clothes to be ironed the user is enabled to heat the same in direct contact with the flame or coal regardless of the liability of its becoming soiled.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a sad-iron, the combination of a central heating - core; a separable smoothing-

plate; a case inclosing the top and sides of the core, provided with a handle and adapted to rest upon the smoothing-plate at the base of the core; locking devices carried by the case for simultaneously engaging the smoothing plate and core; part of said devices being also adapted to engage and carry the core independently of the smoothing-plate.

2. In a sad-iron, the combination of a central heating - core; a separable smoothing-plate; a detachable core-inclosing case provided with a handle and adapted to bear against the smoothing-plate at the base of the core; means for locking the case to the smoothing-plate and core, and for locking the case to the vertical sides of the core independently of the smoothing-plate.

3. In a sad-iron of the class described, the combination of a heating-core, provided in its sides, with opposing apertures for the reception of the trunnions of the locking mechanism; a detachable core-inclosing case; a separable smoothing-plate, provided with opposing standards or bearings for engagement with locking - hooks; a locking - clamp, the lower ends of which are provided with opposing, inwardly - projecting trunnions having pivotal bearings in apertures formed in the walls of said case, hooks adapted to engage with the retaining-bearings of said smoothing-plate; and means for simultaneously throwing said trunnions and supporting-hooks into and out of engagement with said core and the locking-bearings of said smoothing-plate, substantially as set forth.

4. In a sad-iron of the class described, the combination of the heating-core A, provided with apertures L; a detachable core-inclosing case B, provided with outwardly-projecting contact-bearings N; a separable smoothing-plate C, having opposing standards M, provided with lugs K' for engagement with the locking-hooks J' of the clamp; locking-clamp F, the lower arms of which are provided with inwardly-projecting trunnions J, and lifting-hooks J', said trunnions J having pivotal bearings in the apertures K, formed in the walls of said case, and adapted to engage at their inner ends in the retaining-apertures L of said core, said trunnions and supporting-hooks being adapted to be thrown out of engagement with said core and the lugs of said standards when the elastic arms G are in contact with said contact-bearings N, and to be thrown into engagement with said core and lugs by their own elasticity when removed from contact with said bearings N, all substantially as and for the purpose specified.

In testimony whereof I affix my signature in the presence of two witnesses.

OLE TVERDAHL.

Witnesses:

ED. C. SEIKEL,
C. B. BAYLY.