

(No Model.)

C. T. HENDERSON.  
DRUM.

No. 594,691.

Patented Nov. 30, 1897.

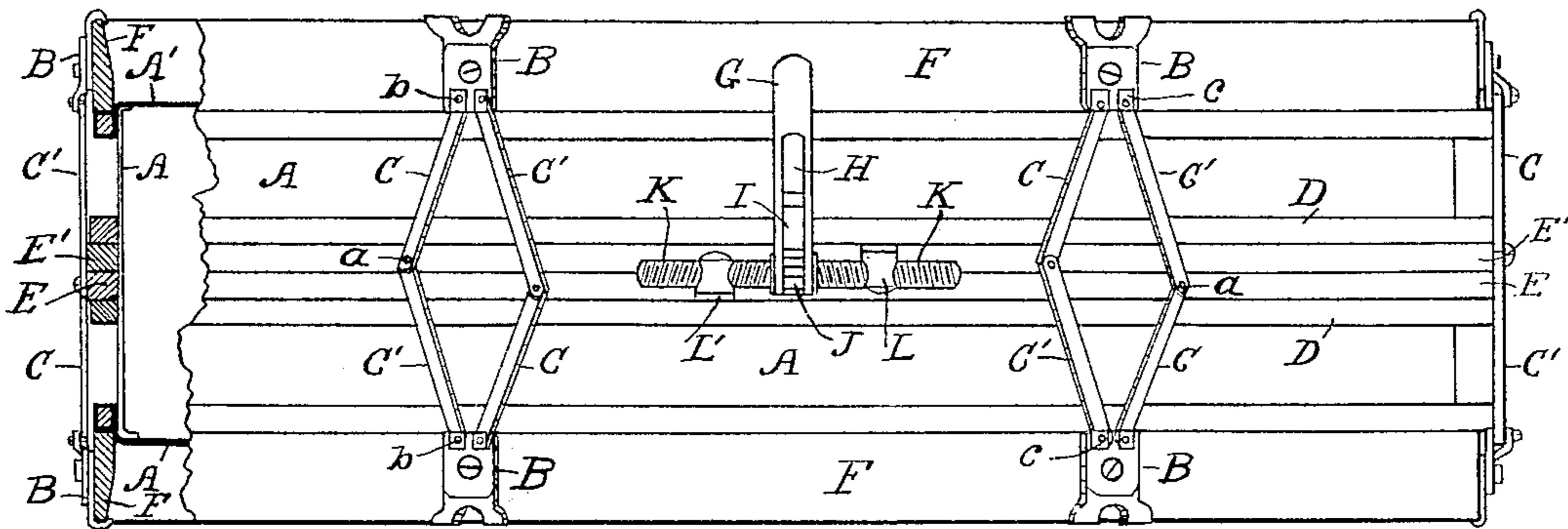


Fig. 1.

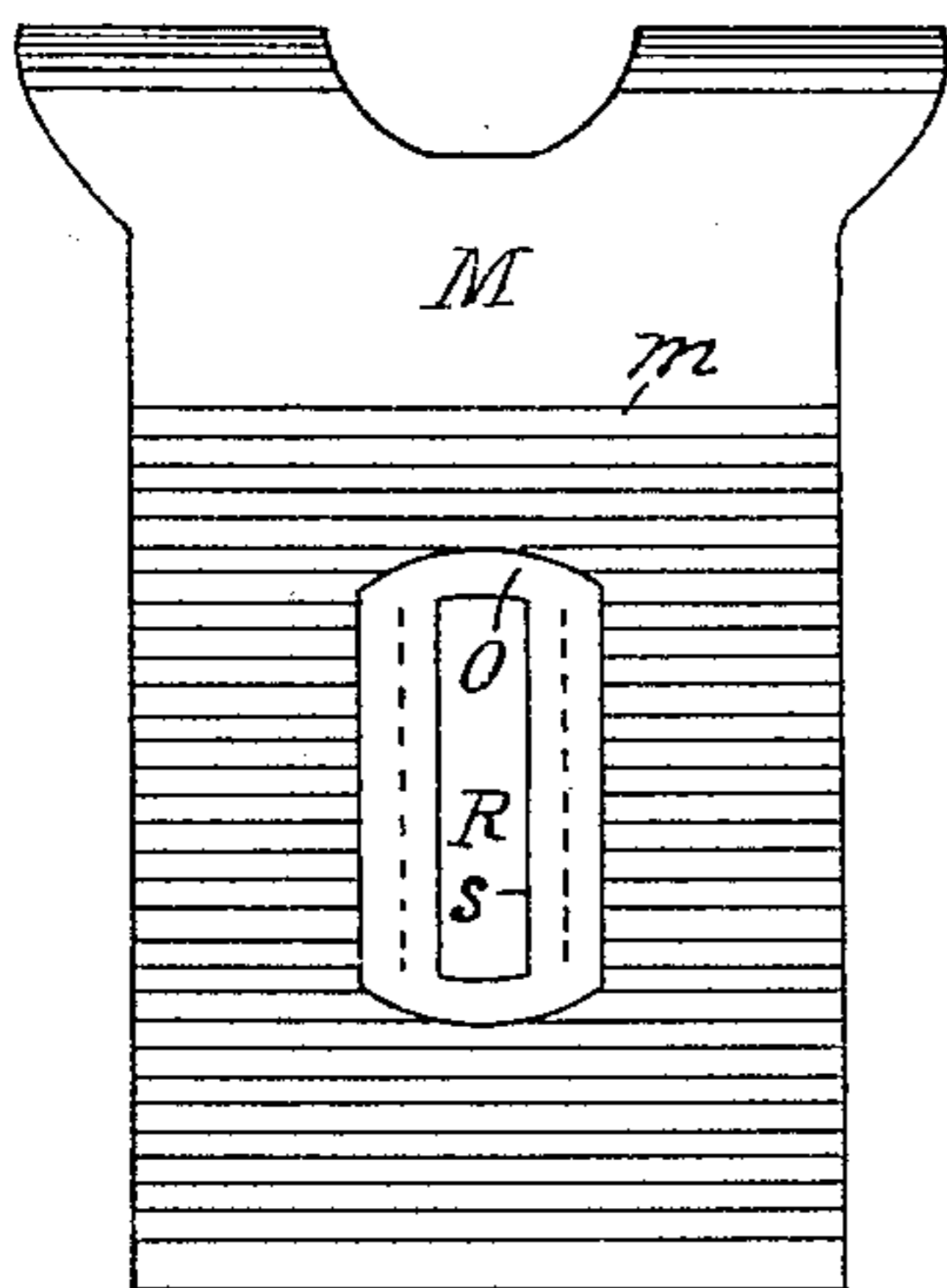


Fig. 2.

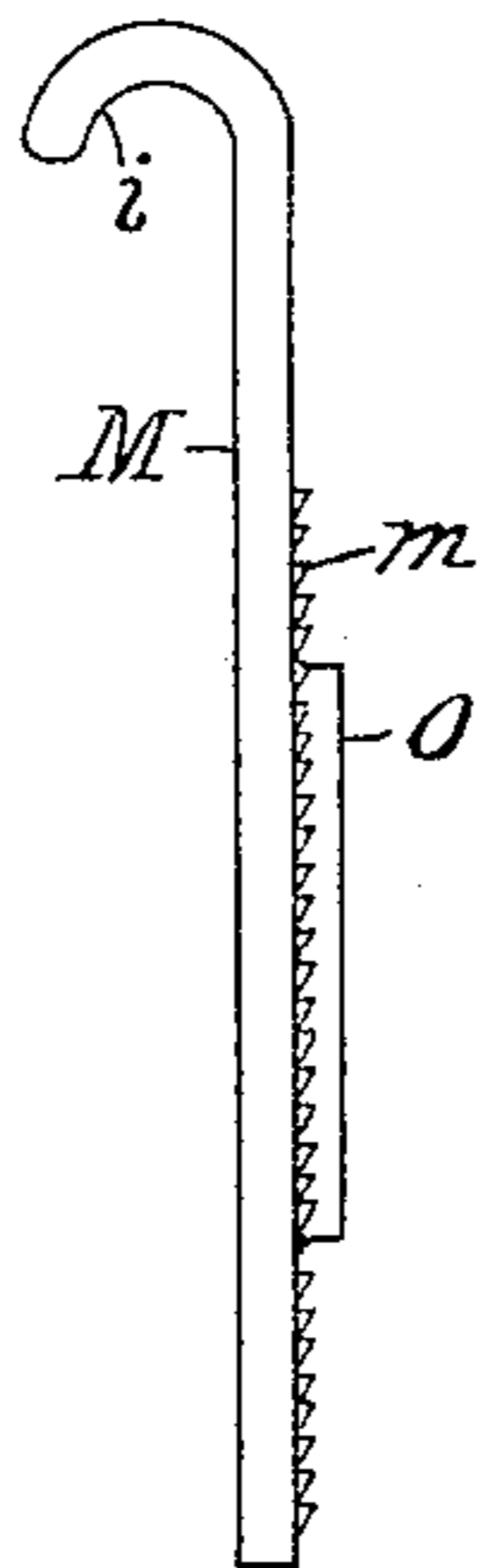


Fig. 3.

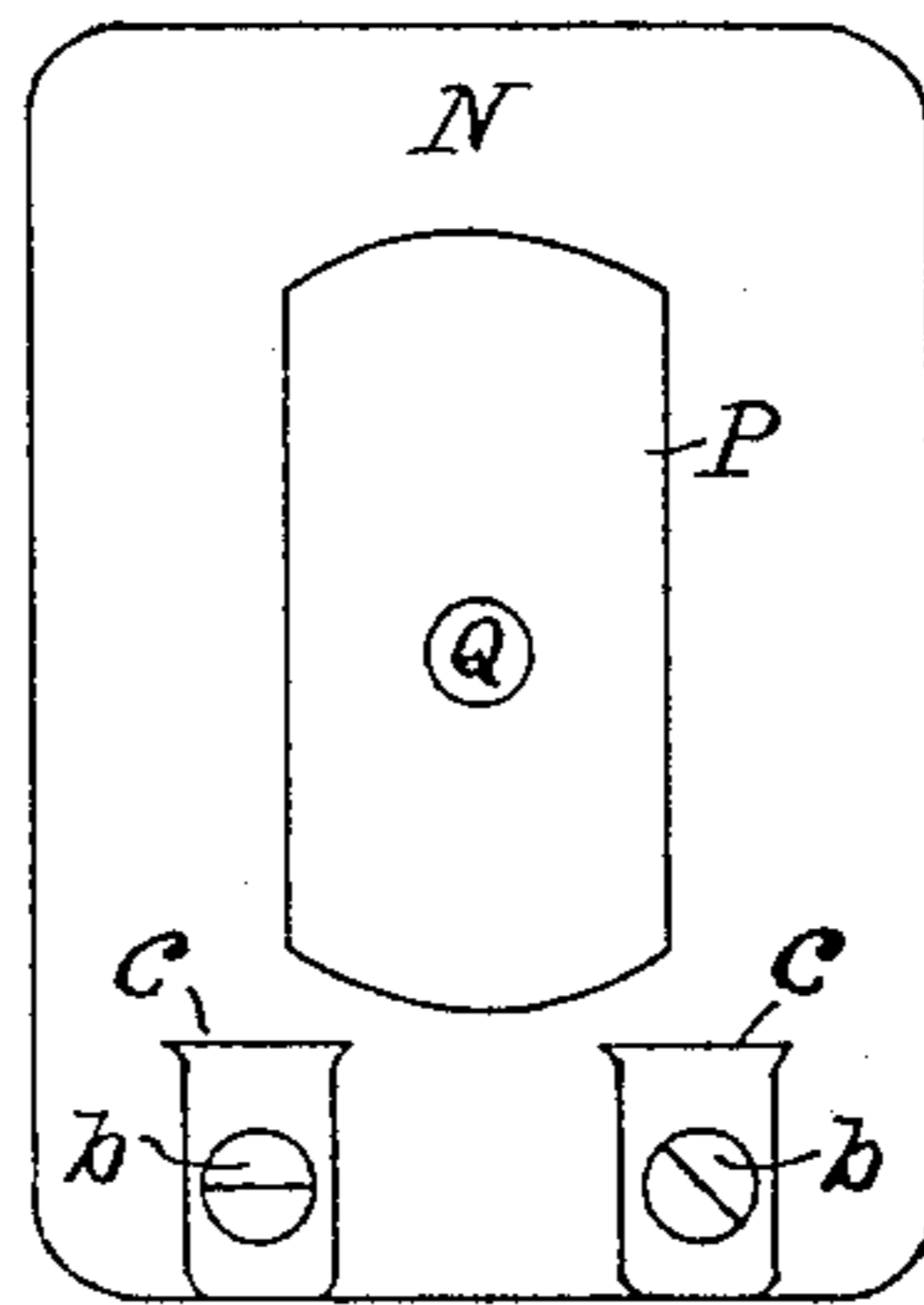


Fig. 4.

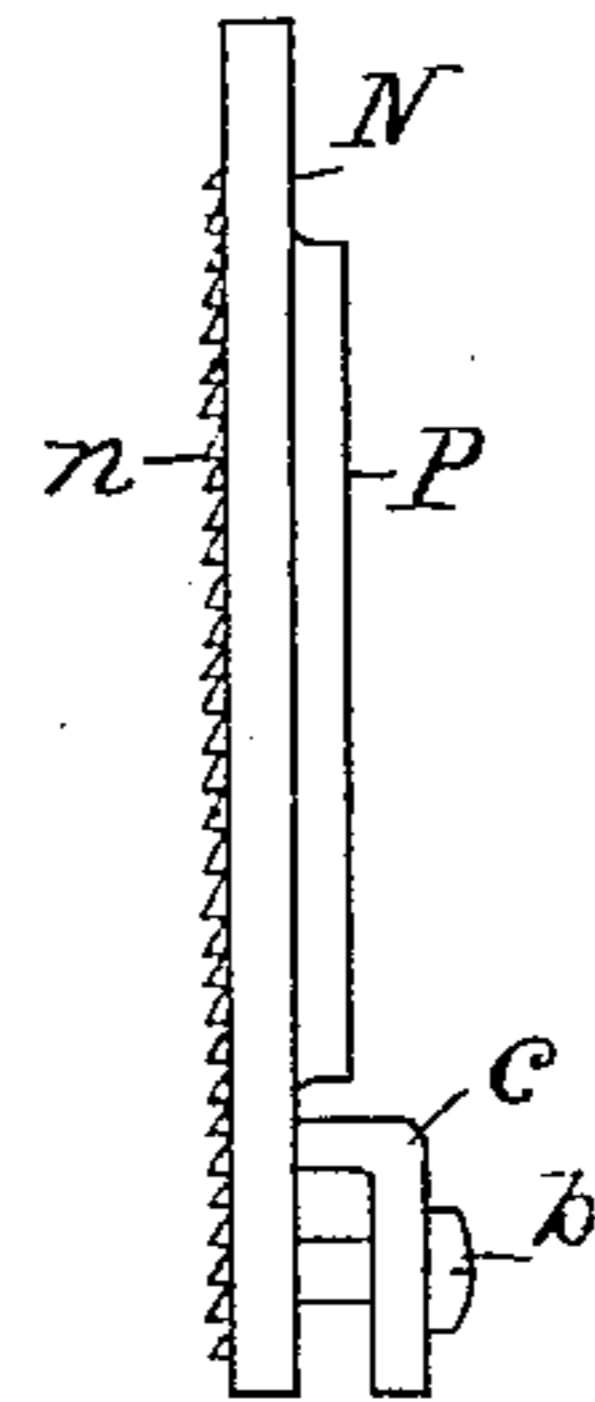


Fig. 5.

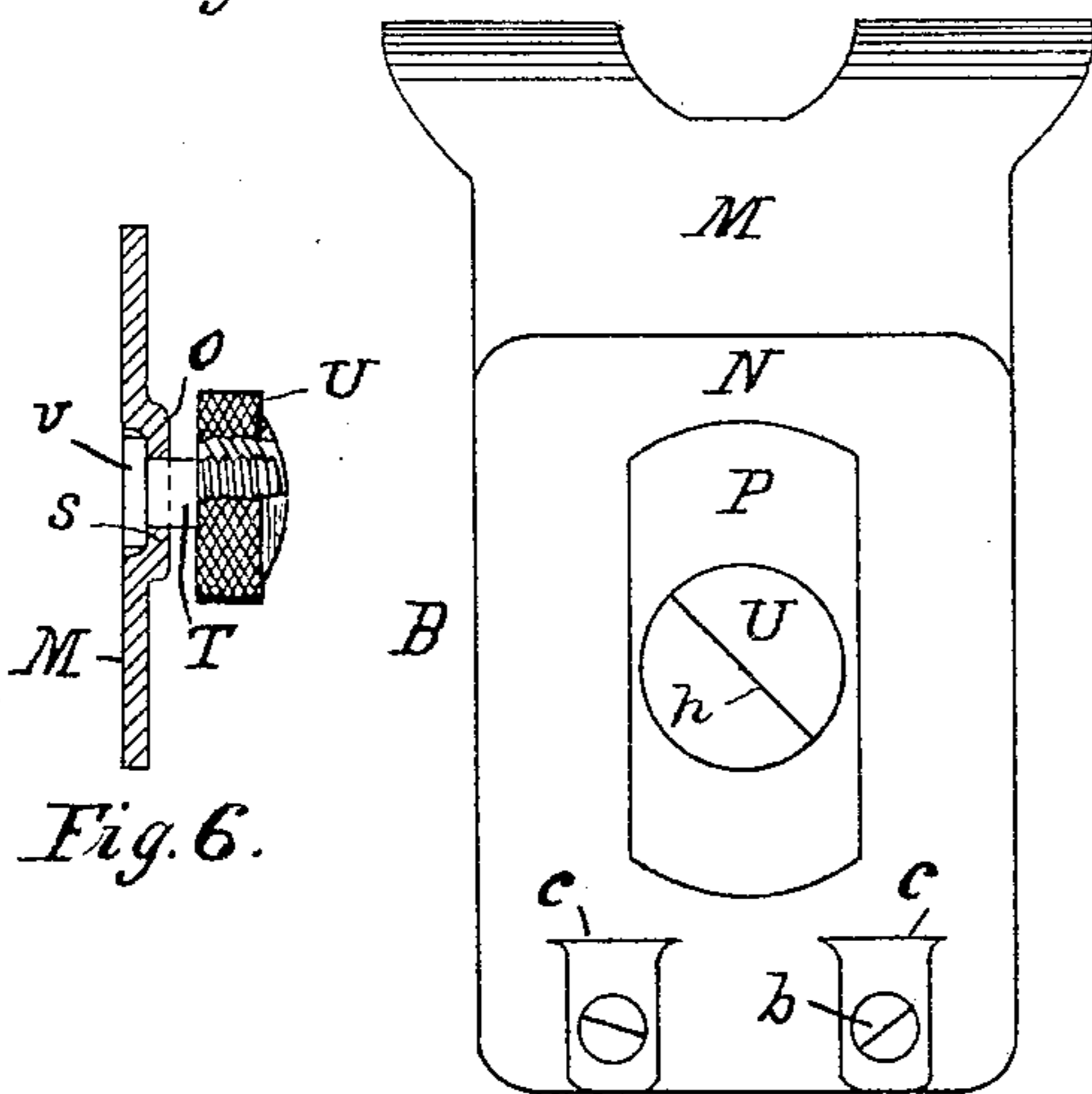


Fig. 6.

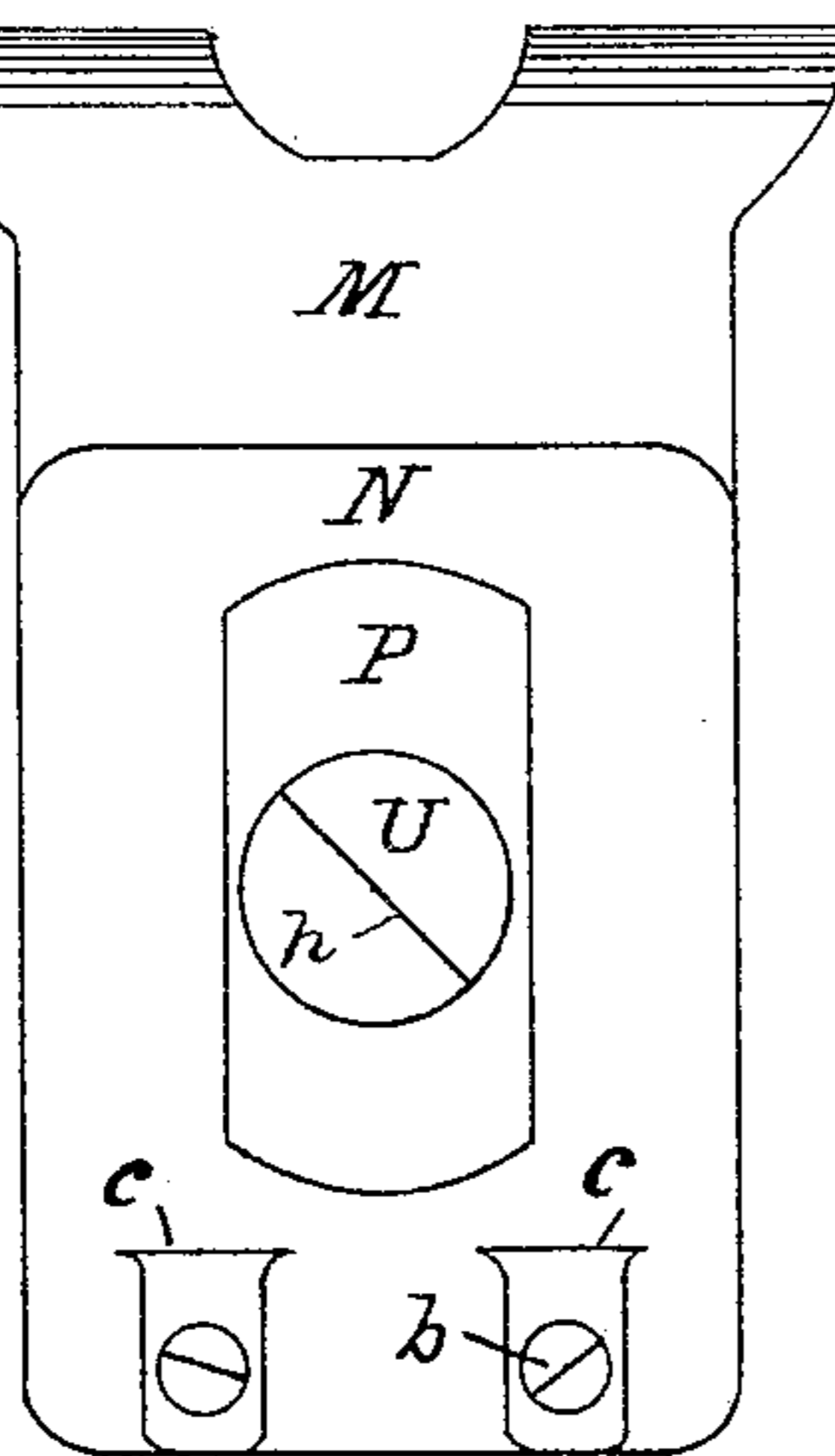


Fig. 7.

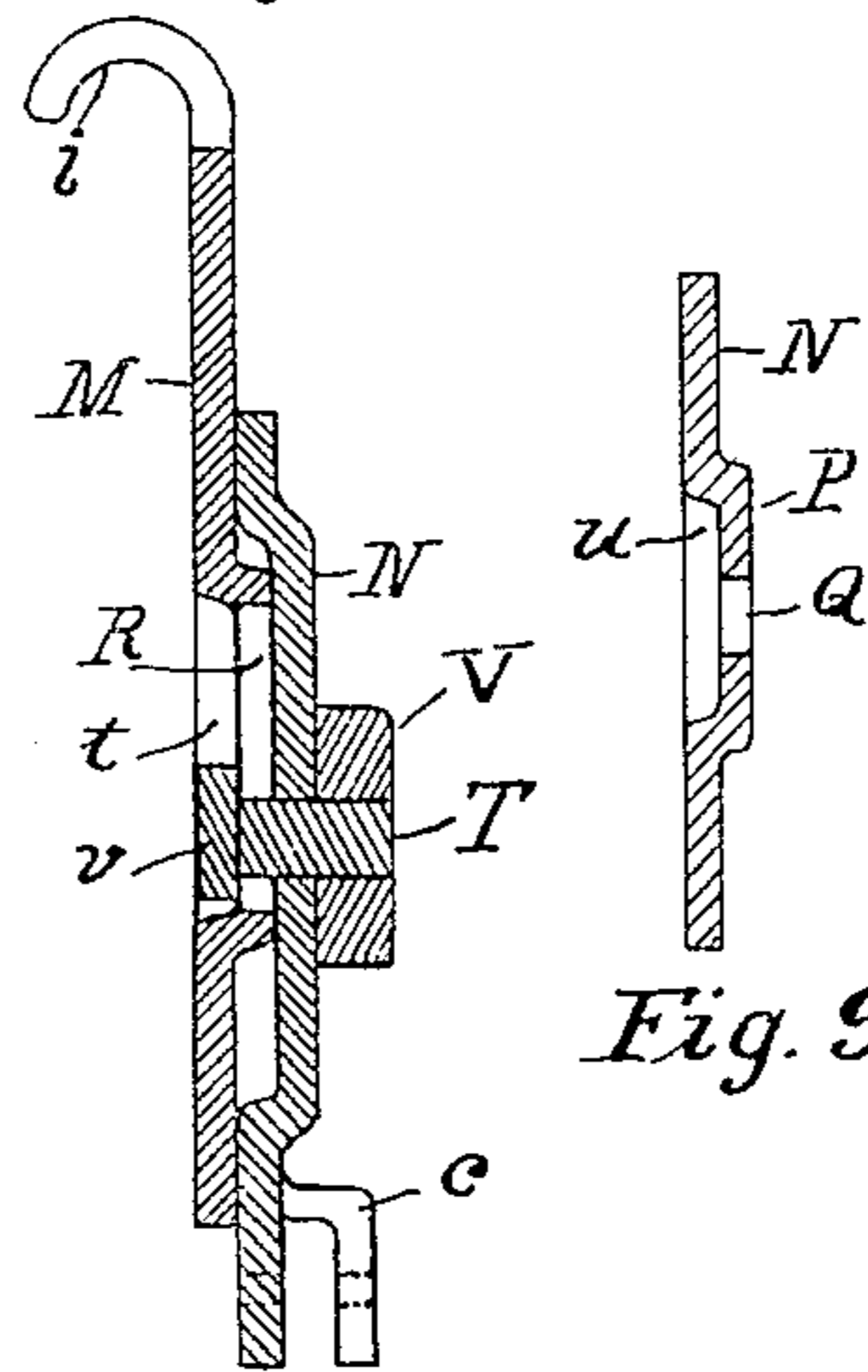


Fig. 8.

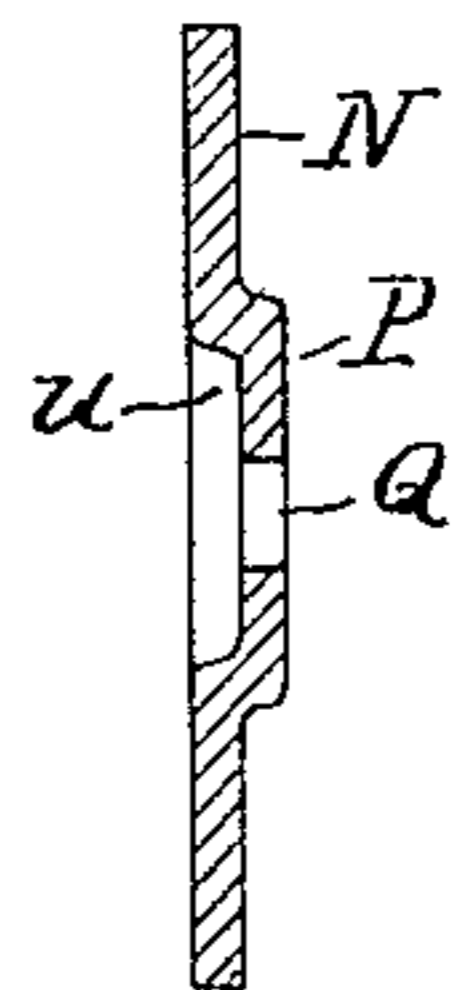


Fig. 9.

Witnesses:

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# UNITED STATES PATENT OFFICE.

CHARLES T. HENDERSON, OF DUNKIRK, OHIO.

## DRUM.

SPECIFICATION forming part of Letters Patent No. 594,691, dated November 30, 1897.

Application filed April 3, 1897. Serial No. 630,607. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES T. HENDERSON, a citizen of the United States, residing at Dunkirk, in the county of Hardin and State of Ohio, have invented certain new and useful Improvements in Drums; and I do declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to drums, banjos, and similar musical instruments on which provision is made for tightening the head or heads simultaneously at all points at one operation; and it consists in a hook to engage the hoops which retain the heads, of a certain peculiar design, and in the parts and combination of parts comprising said hooks, in combination with means for simultaneously operating said hooks, as will be more fully described hereinafter and pointed out in the claims.

My object is to provide hooks that shall be adaptable to such instruments and which shall be susceptible of independent adjustment in themselves when first applying the heads, so that compensation may be had for inequality of thickness or tenacity of the material composing the heads, after which adjustment the heads may be tightened and loosened uniformly at all points by means of other appliances connected to said hooks. This object is attained in my invention, which is simply and cheaply manufactured and is durable and economical in use.

Referring to the drawings, Figure 1 represents a side elevation of a drum having my device applied, in which a portion is broken away and shown in section; Fig. 2, a front elevation of the back portion of my hook; Fig. 3, a side elevation of the back portion of the hook; Fig. 4, a front elevation of the front portion of the hook; Fig. 5, a side view of the front portion of the hook; Fig. 6, a transverse central sectional view of the back portion of the hook; Fig. 7, a front elevation of the hook complete; Fig. 8, a vertical central sectional view of the hook complete, and

Fig. 9 a transverse central sectional view of the front portion of the hook.

In the drawings, A designates the shell or barrel; A', the heads; B, the hooks; C C', the links; D, the guides; E E', the straining-rings, and G the operating-lever.

In constructing my device I make the hook in two principal parts and provide means whereby they are rigidly held together in any position relatively one part to the other in which they may be placed as desirable in effecting an adjustment of their length as combined, as will be further described hereinafter. Said hooks are adapted to be connected to suitable appliances whereby they may be actuated simultaneously, such as the devices shown, comprising the links C C', pivoted in the jaws c by means of screws or rivets b, said links being pivotally connected at their opposite ends by screws a or similar means to the straining-rings E E', encircling the shell A, and held in alinement by guides D D, the said rings being actuated by the ratchet-lever G, having a spring H, pressing a dog or pawl I, in connection with a toothed wheel J, secured to a double-ended threaded screw K, the latter engaging threaded nuts L, pivoted to an ear L', secured rigidly one to each of the rings. It is obvious that when the pawl I is tripped in one direction the rings must move in a direction opposite to each other, spreading the links and therefore tending to draw the opposing hooks toward each other to draw the hoops F F down upon the heads, and a reverse operation must loosen the heads.

The hooks B are made of suitable light and strong metal of any desired fancy shape permissible and may be ornamented as desired. They comprise the back M and front N, a bolt T, and threaded nut U. The front and back parts are preferably pressed from thin plate metal, in which process the various forms may be produced at one operation. The back plate M has an oblong raised central portion O, having a slot R cut through, leaving side flanges s, and on the face of the plate are transverse grip teeth or corrugations m. The upper end of the plate is turned over toward the back, forming a hook i. The front plate N has also a raised central portion P, somewhat longer than that on the

back plate and slightly wider, and in the center of the raised portion is a bolt-hole Q. The back surface is provided with grip-teeth *n* or corrugations adapted to engage those on the face of the back plate. The lower end of the plate is provided with pivot-holes to receive pivots *b* and may suitably have a jaw-piece *c* secured to the plate and covering the end of the link. The recess *u* is designed to be slightly deeper than the raised portion O, so that pressure of the bolt and nut shall draw the grip-teeth in close contact, the latter sustaining the tensile strain required. The bolt has a square head *v* flush with the back of the plate M, and the length of the slot in which it moves permits of proper adjustment. The bolt may be provided either with a plain nut V or with a capped and milled nut U, having a slot *h* in the face to receive a screw-driver.

It will be understood that when the hook is applied the nut upon the retaining-bolt is loosened, so that the hook *i* may be easily placed over the upper edge of the hoop, and after pressing down upon the hoop and back plate until a proper independent adjustment is made the nut is set up and securely holds the front and back parts of the hook together.

In lieu of the exact design shown I may make such modifications in contour as fancy may suggest within the scope and intent of my invention.

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

1. A hook to engage the head-retaining hoops of drums and like instruments comprising in combination a member having its upper end turned over said hoop, and provided with transverse corrugations, a member having pivotal connections at its lower portion and provided with transverse corrugations adapted to engage the corrugations on said other member, and means whereby said members may be adjustably attached and detached, substantially as and for the purposes shown and described.

2. In a hook for securing the head-retaining hoops of drums and like instruments, the combination of a back plate having a hooked end adapted to said hoops and provided with a raised central portion having an aperture therethrough, a front plate having a raised central portion provided with an aperture

therethrough and adapted to engage the raised portion on said back plate, transverse corrugations on said plates in engagement, a screw-bolt arranged to bind said plates together, with means whereby said hooks may be operated, substantially as shown and described.

3. The combination of a drum or like instrument having head-retaining hoops, a hook adapted to engage said hoops and provided with means whereby it may be lengthened or shortened at will one independently of another of a series, with means whereby a series of said hooks may be actuated simultaneously, substantially as and for the purposes set forth.

4. A head-tightener for drums and like instruments comprising in combination a series of hooks each consisting of a part adapted to hook over the top of the head-retaining hoop, a part adapted to be connected adjustably to said other part and having means whereby to connect it to actuating-links, a bolt and a nut working thereon and securing said two parts together in any adjusted position relative to each other, the straining-rings encircling the shell of said instrument, the links connecting said hooks to said straining-rings, the swiveled nuts on said rings, the screw working in said nuts, and the ratchet connected to said screw, substantially as and for the purposes shown and described.

5. The combination of the hooks, each comprising the back plate having corrugations on the face thereof and provided with the upper hooked end and the slot in the body thereof, the front plate having corrugations at the back surface adapted to engage said other corrugations and provided with a bolt-hole in the body thereof coinciding with said slot, the bolt in said slot and said hole and a nut thereon whereby said front and back plates are secured adjustably together, means on said front plate whereby it may be connected to an operating mechanism, with a drum or like instrument provided with means whereby said hooks may be actuated simultaneously substantially as shown and described.

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

CHAS. T. HENDERSON.

Witnesses:

D. F. FRYER,  
J. D. MILLER.