

No. 662,822.

Patented Nov. 27, 1900.

C. H. REID.

HAT POUNCING MACHINE.

(Application filed May 10, 1899. Renewed Aug. 9, 1900.)

(No Model.)

3 Sheets—Sheet 1.

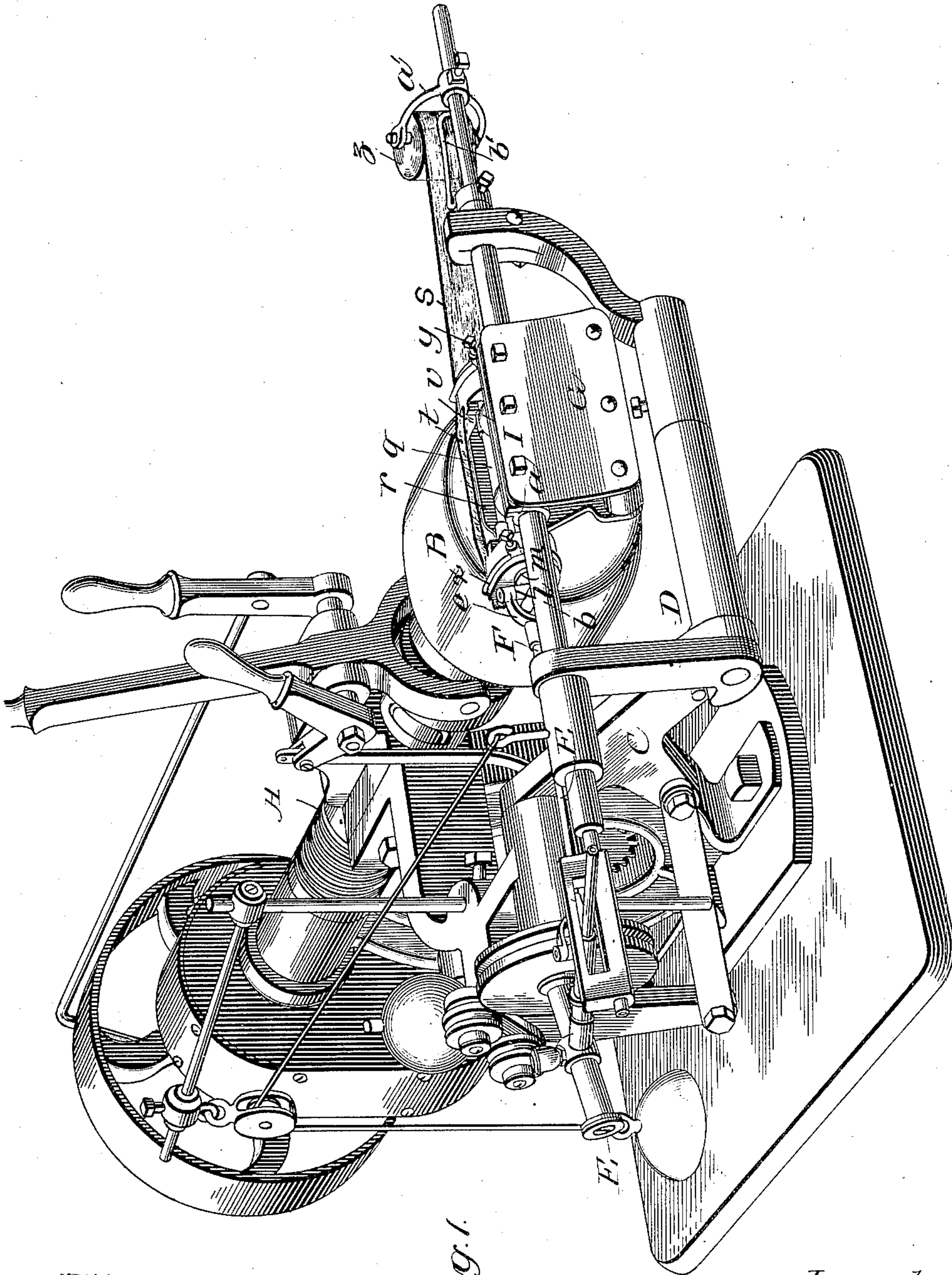


Fig. 1.

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3 Sheets—Sheet 2.

Fig. 2.

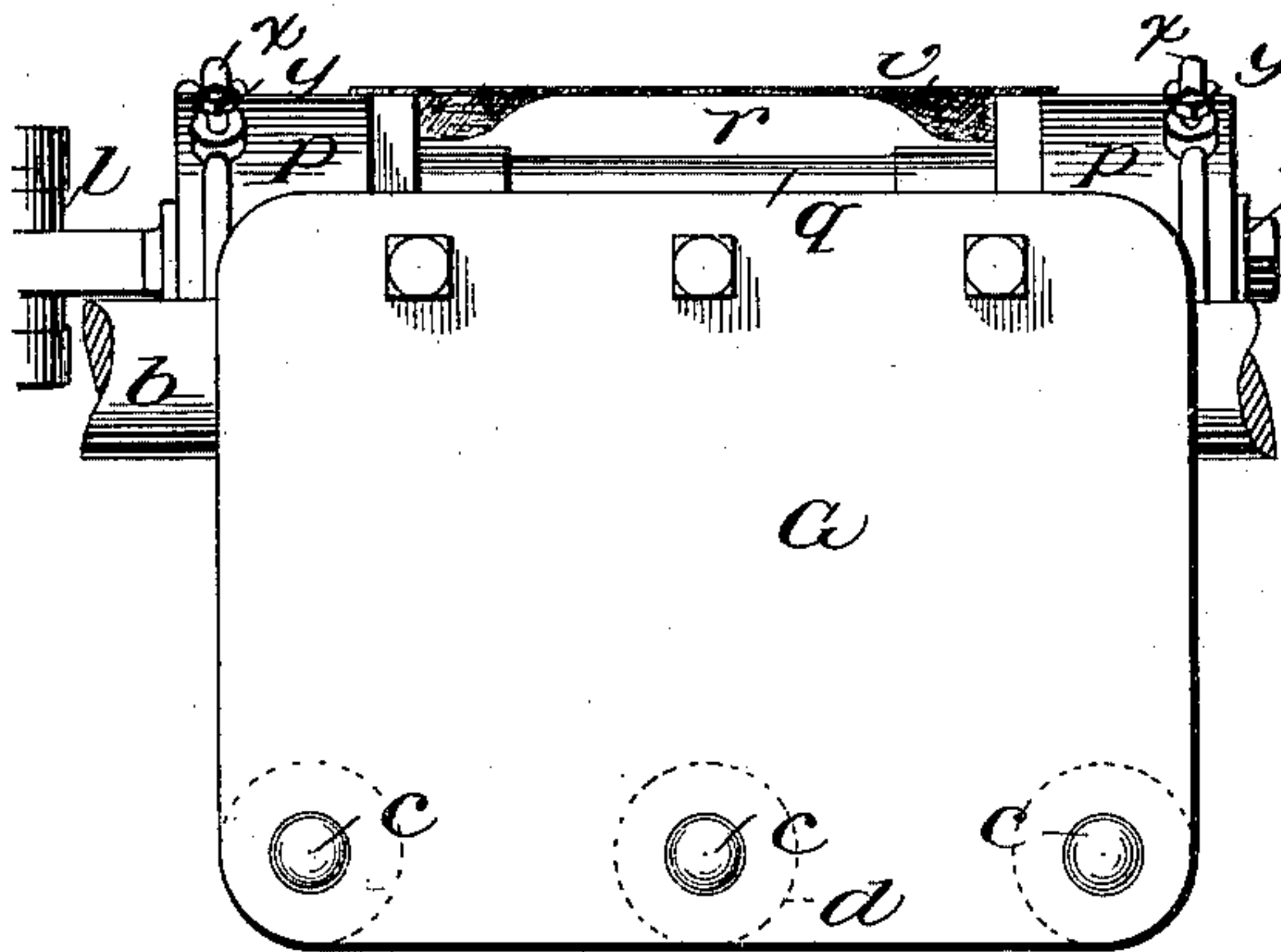


Fig. 3.

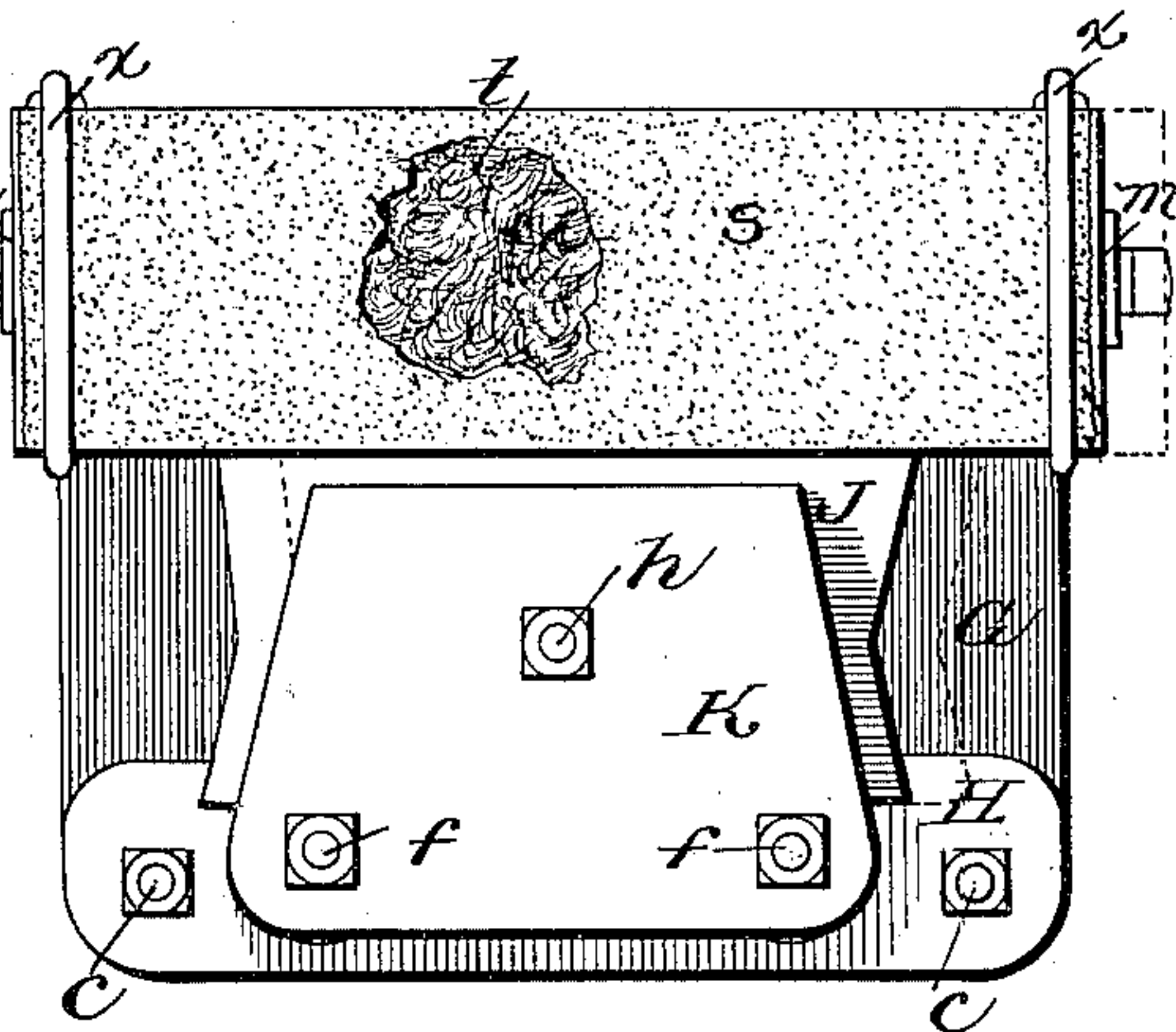


Fig. 4.

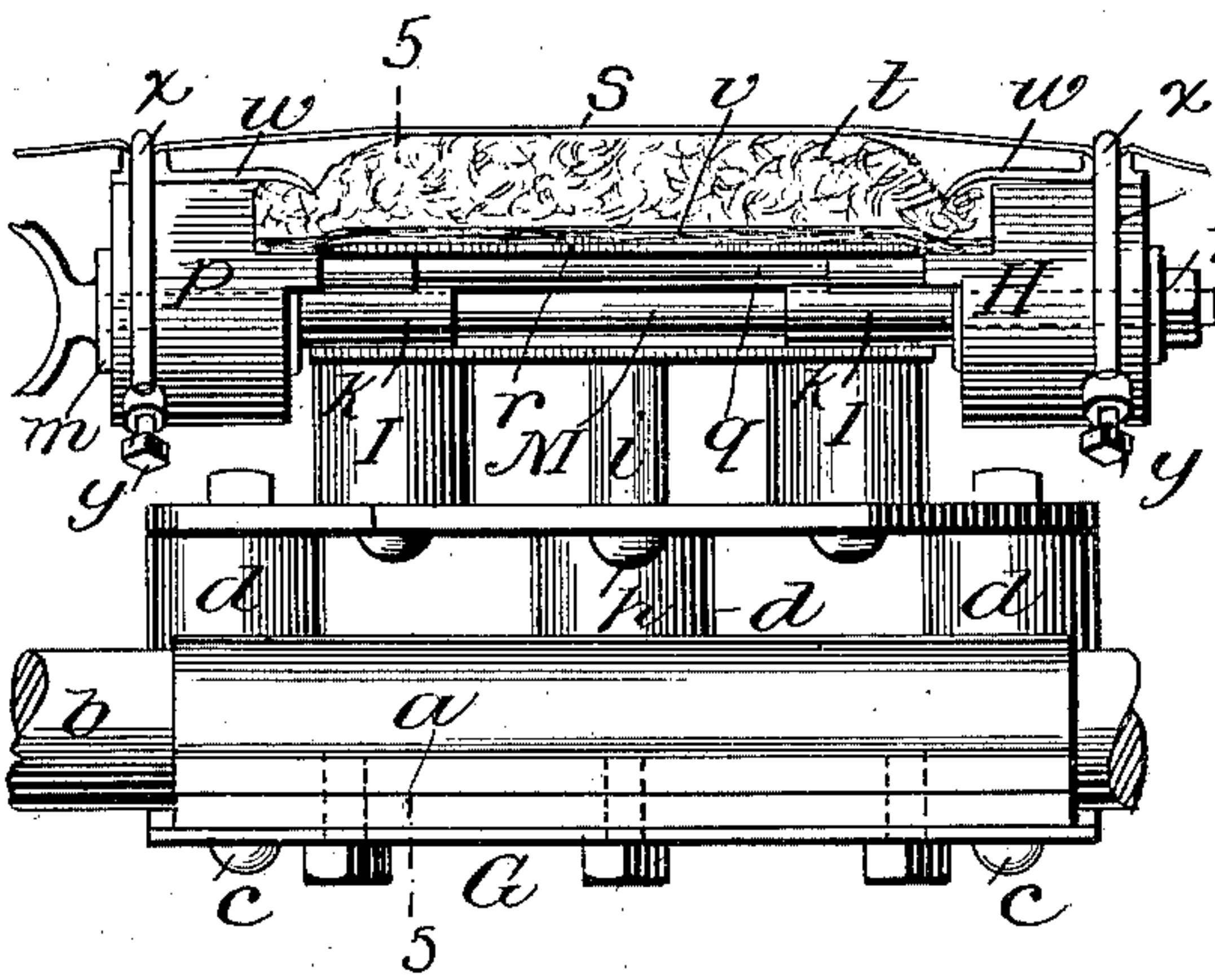
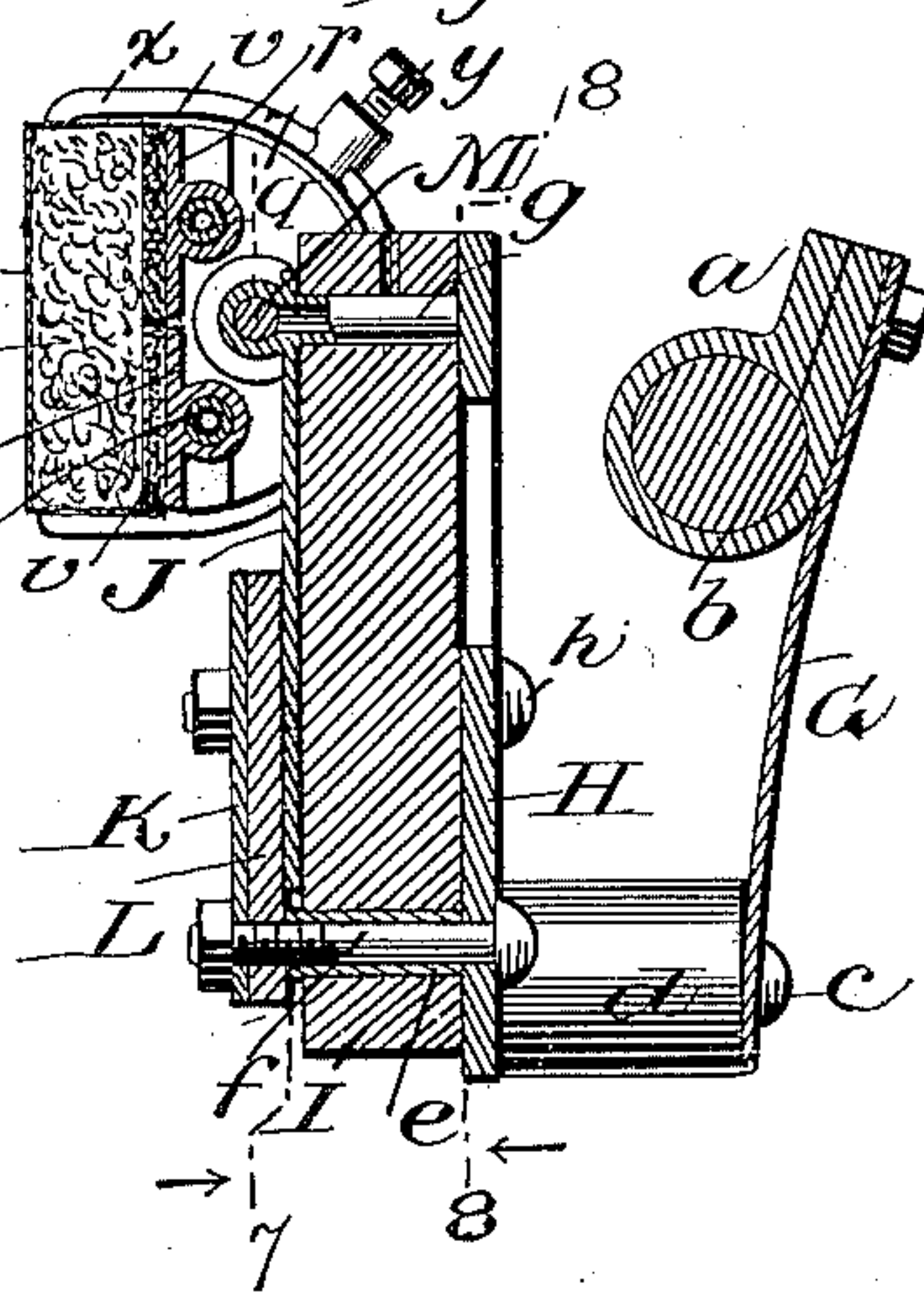
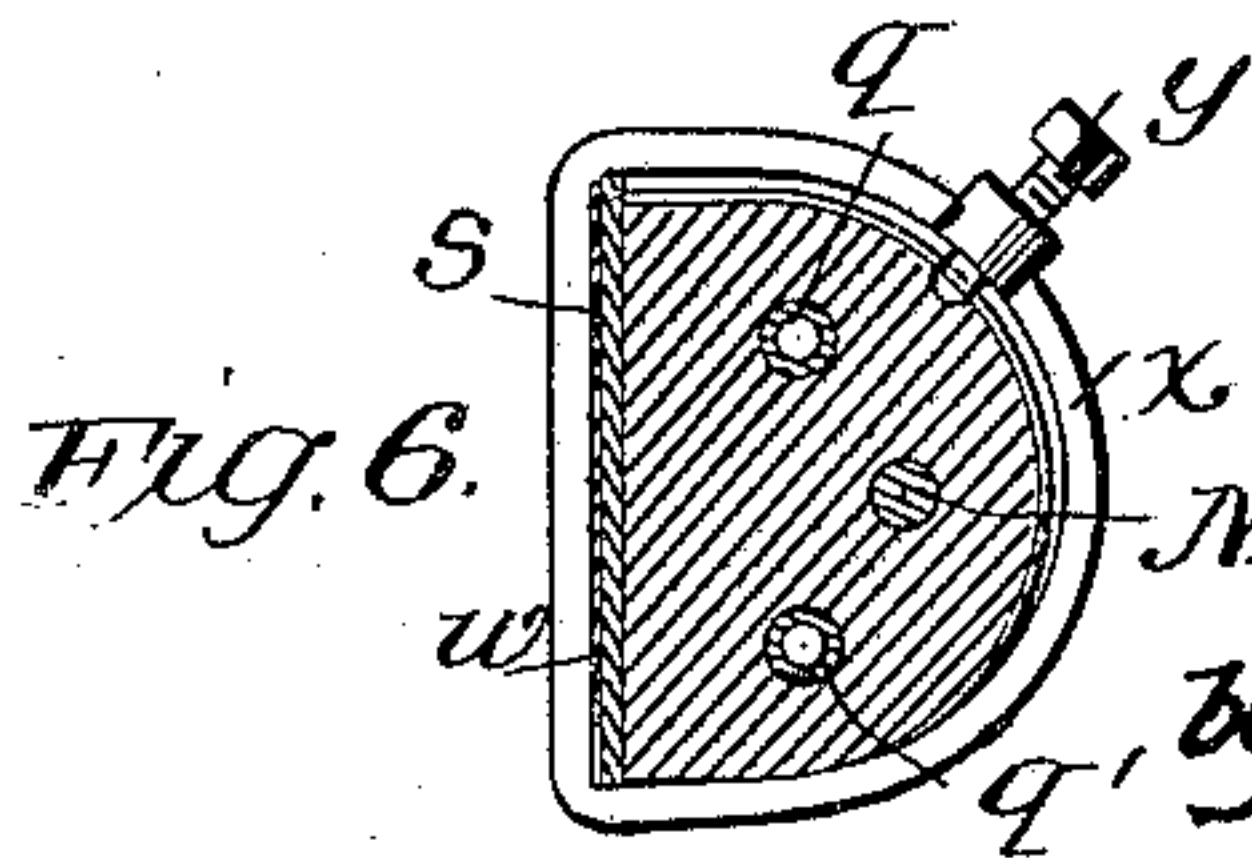


Fig. 5.



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3 Sheets—Sheet 3.

Fig. 7.

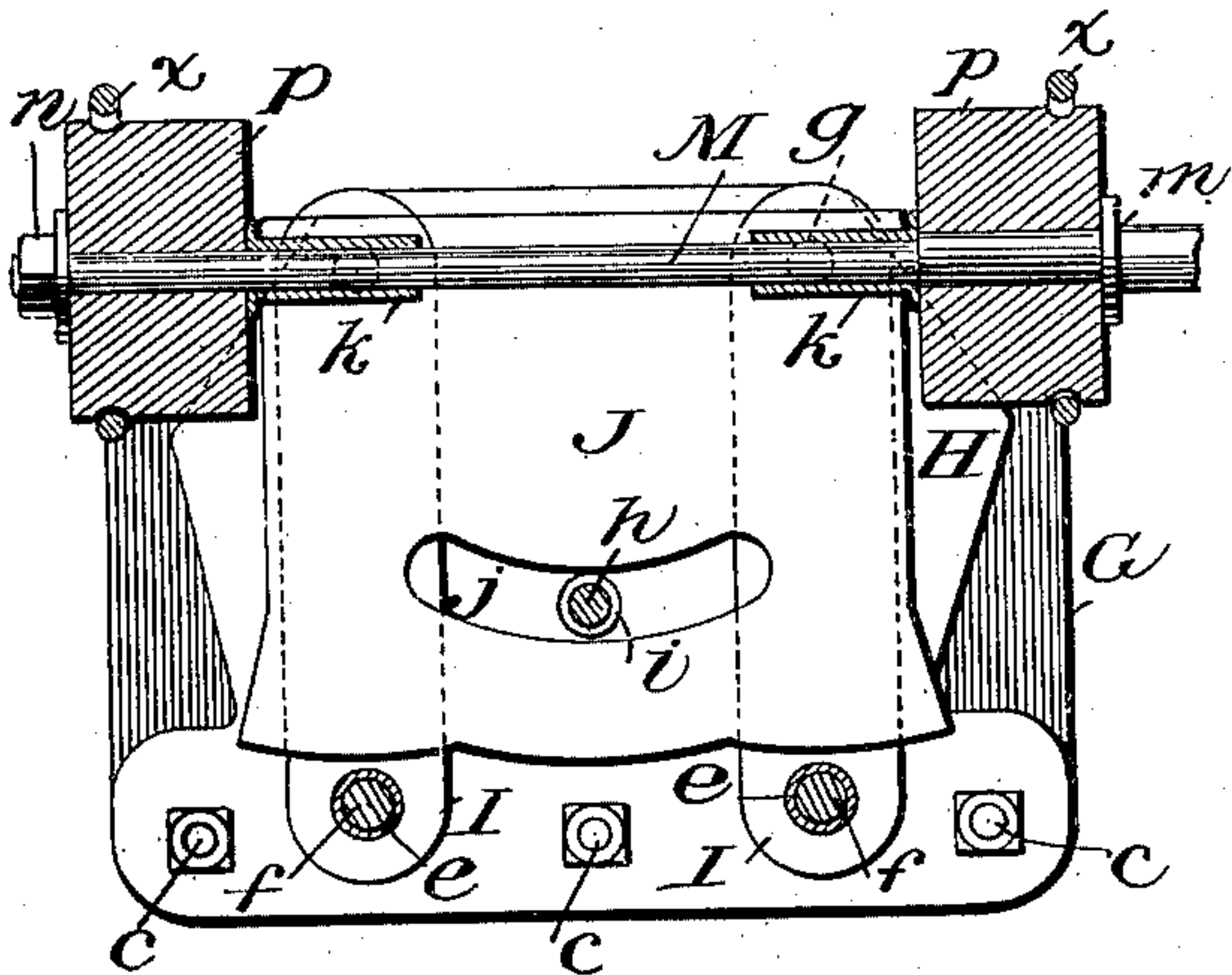


Fig. 8.

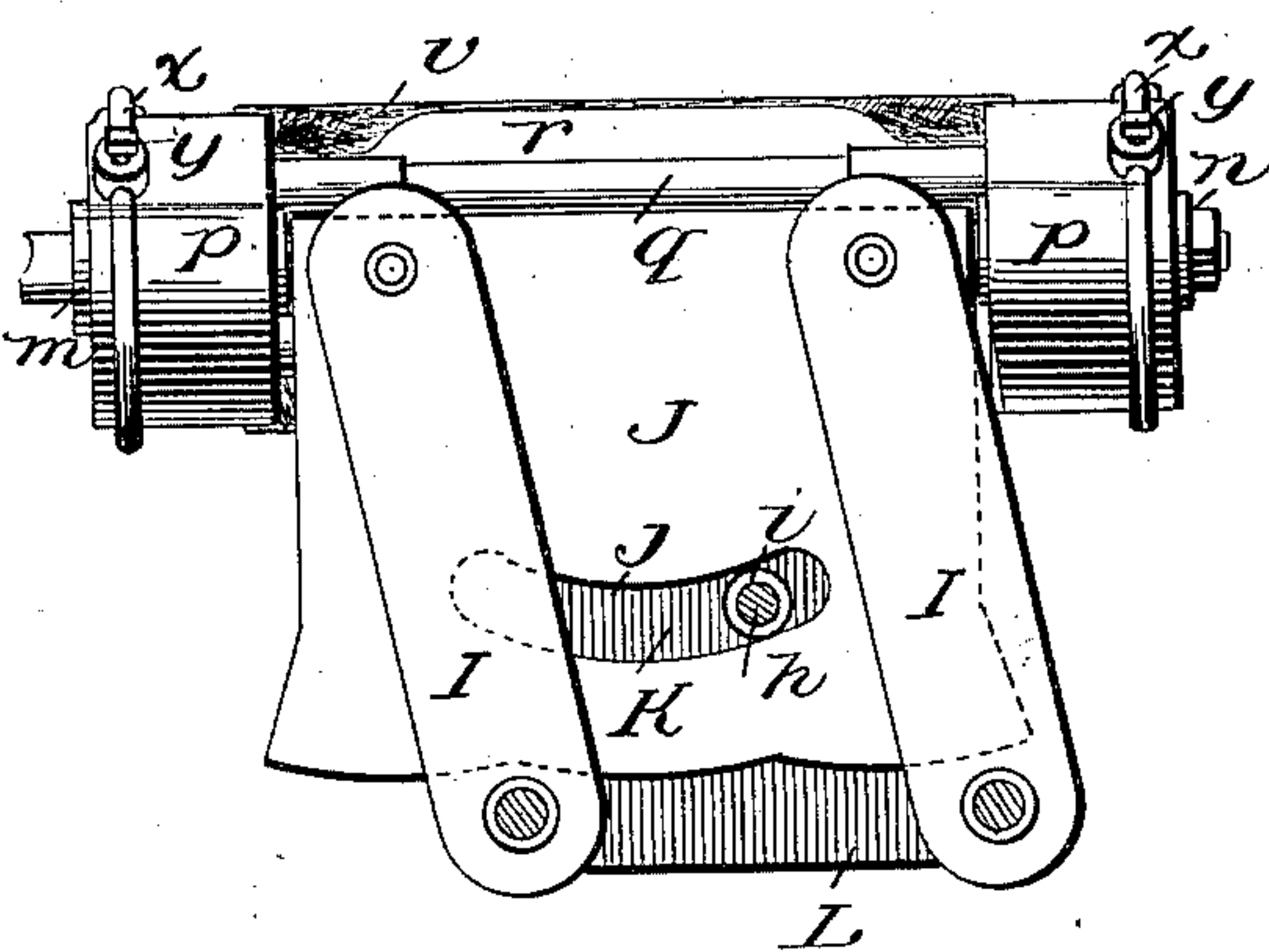


Fig. 9.

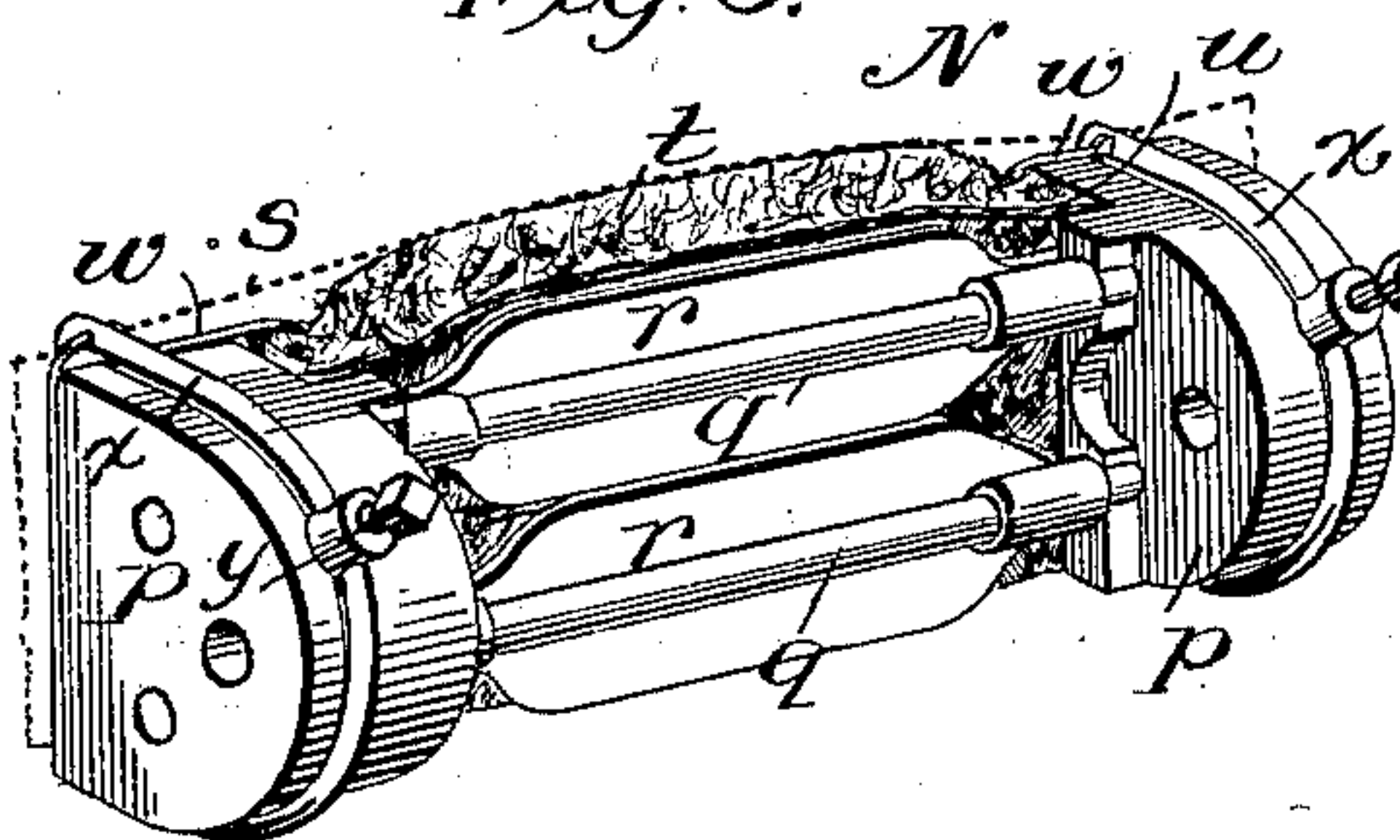


Fig. 10.

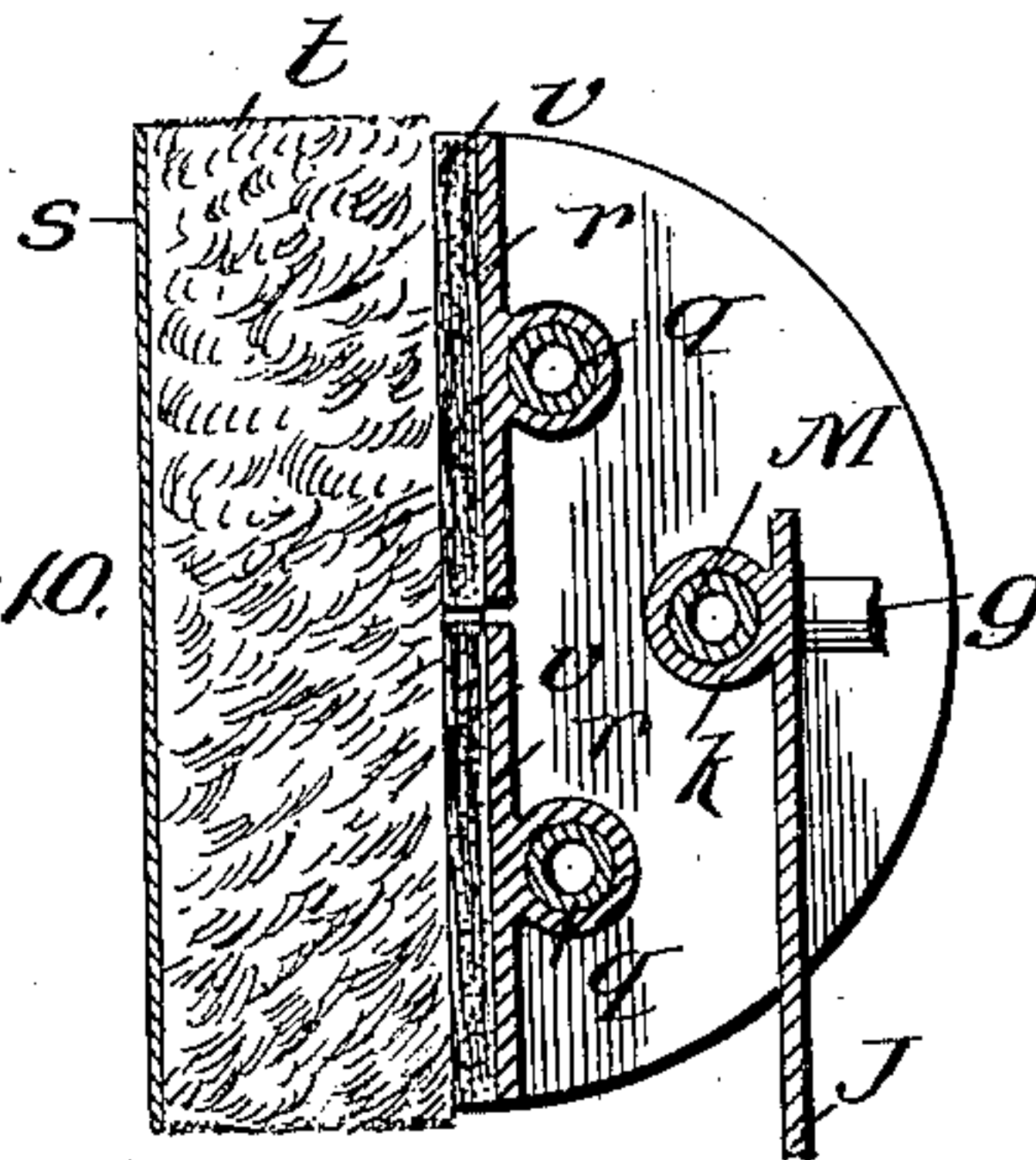


Fig. 11.

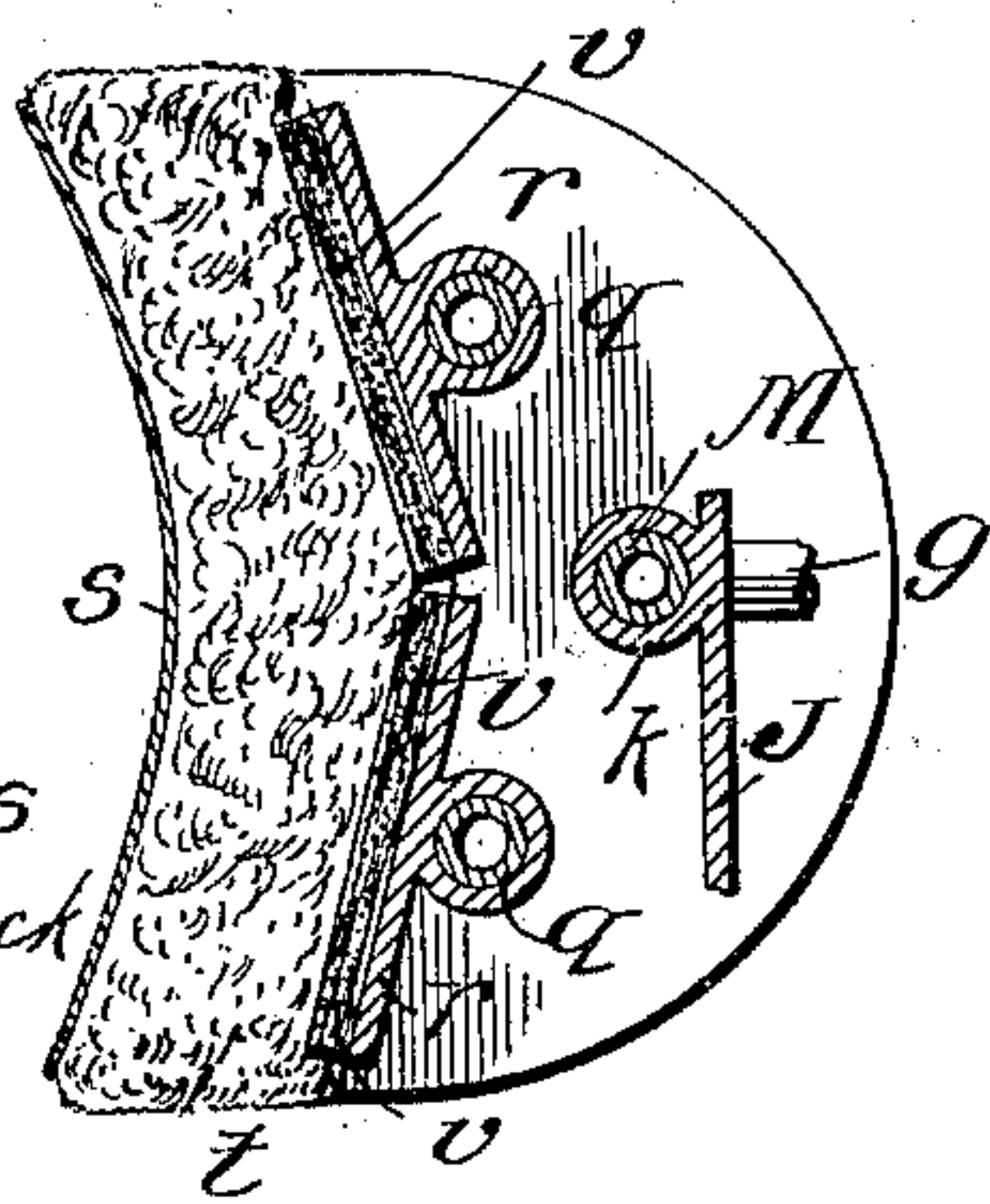
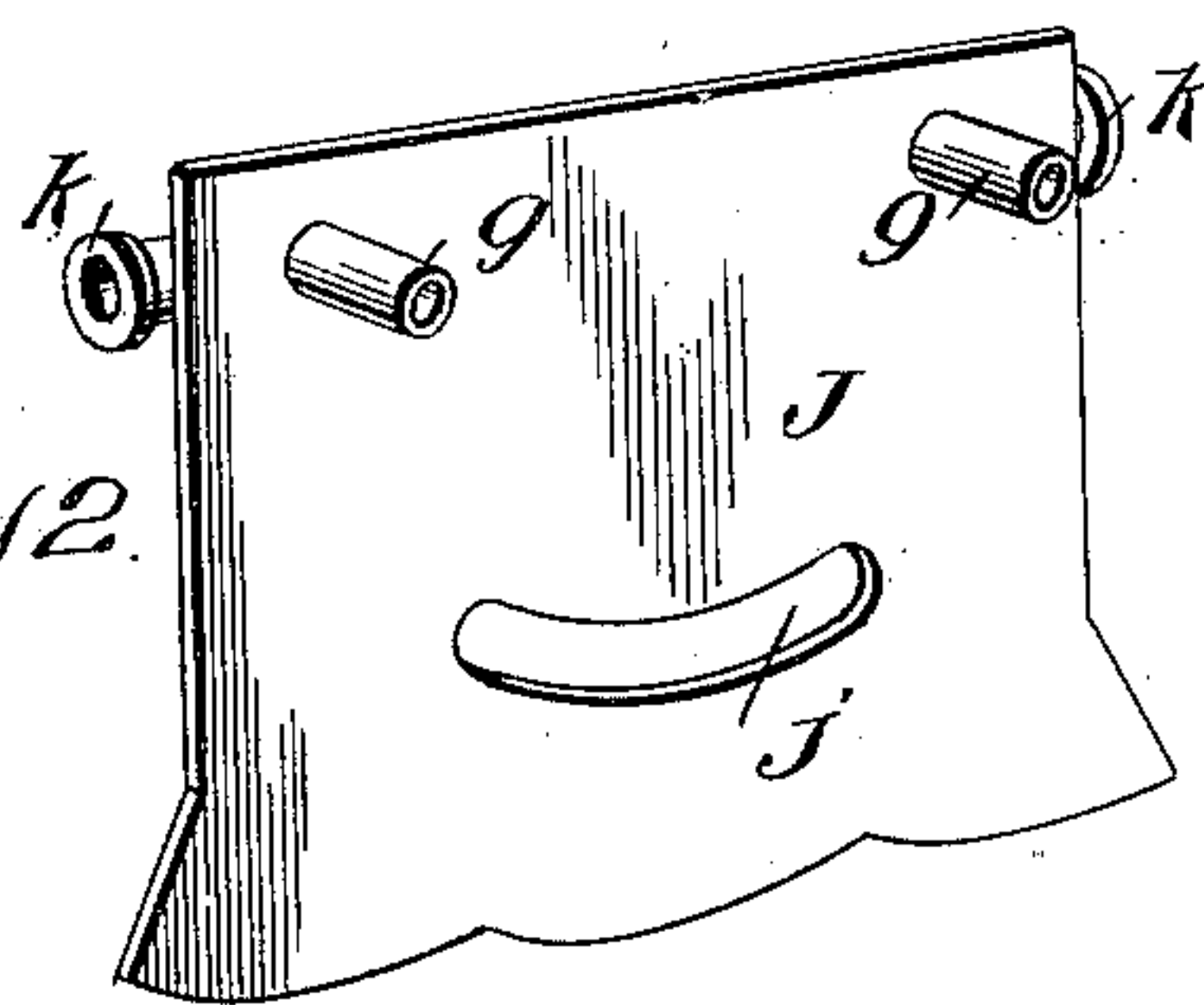


Fig. 12.



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UNITED STATES PATENT OFFICE.

CHARLES H. REID, OF DANBURY, CONNECTICUT.

HAT-POUNCING MACHINE.

SPECIFICATION forming part of Letters Patent No. 662,822, dated November 27, 1900.

Application filed May 10, 1899. Renewed August 9, 1900. Serial No. 26,446. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. REID, a citizen of the United States, residing at Danbury, in the county of Fairfield and State of Connecticut, have invented new and useful Improvements in Hat-Pouncers, of which the following is a specification.

My invention relates to hat-pouncers, and contemplates the provision of a highly-efficient pouncer which while designed more particularly for use in the pouncing-machine forming the subject-matter of my contemporary application of even date herewith, Serial No. 716,234, is calculated to be used to advantage in other machines.

The preferred construction of the said pouncer and its many advantages will be fully understood from the following description and claims when taken in conjunction with the accompanying drawings, in which—

Figure 1 is a perspective view of the machine constituting the subject-matter of my aforesaid contemporary application, the same being shown as equipped with my improved pouncer. Figs. 2 and 3 are elevations of opposite sides of the pouncer. Fig. 4 is a view taken at right angles to Fig. 2. Fig. 5 is a transverse section taken in the plane indicated by line 5 5 of Fig. 4. Fig. 6 is a detail transverse section taken through one of the end blocks of the pouncing-pad. Figs. 7 and 8 are sections taken in the planes indicated by the lines 7 7 and 8 8, respectively, of Fig. 5. Fig. 9 is a perspective view of the pouncing-pad. Fig. 10 is an enlarged transverse section of the same, illustrating the pad proper and the pad backing-strips of the same in their normal positions. Fig. 11 is a similar view illustrating said pad proper and the pad backing-strips in the position they assume when the pouncing material on the face of the pad is operating upon the curved surface of a hat. Fig. 12 is a perspective view of a plate forming part of the pouncer.

In the said drawings similar letters designate corresponding parts in all of the several views.

Because of the full disclosure in my aforesaid other application of the machine shown in Fig. 1 it is not deemed necessary to describe said machine except to say that it embraces a suitable framework, a shaft A, hav-

ing a hat-block B secured thereon, a lever C, pivoted on the framework, a lever D, pivoted in lever C and constituting a pouncer-frame, means operated by the shaft A for swinging the lever in a vertical plane, so as to carry the pouncer on the lever or frame D up the side of the body and over the tip of a hat on the block B, and a shaft E, which is coincident with the center of the lever C. The shaft E is designed to be rotated through the medium of a band, (not shown,) and motion is transmitted from the same to the pouncing-pad by the devices fully described in my other application, among which devices is a connecting-rod F.

G is the pouncer-support, which is adjustably connected by a clamp *a* to a rod *b*, forming part of the pouncer-frame D. Said support is in the form of a resilient sheet-metal plate, so as to yieldingly press the pouncing-pad against the hat being operated on, and is connected to the metallic body H of the pouncer by bolts *c*, upon which are mounted spacing-lugs *d* of wood or other suitable material.

I I are swinging levers which work against the face of the body H. These levers are preferably of wood, because of the lightness of such material and its ability to absorb lubricant, and are provided adjacent to their lower ends with metallic bushings *e* to receive bolts *f*, which pivotally connect them to the body H.

J is a sheet-metal plate arranged at the opposite side of the levers I with reference to the body H and having lateral projections *g*, of circular form in cross-section, loosely arranged in said levers adjacent to the free ends thereof.

K is a sheet-metal plate secured on the bolts *f*, and L is a strip of wood interposed between the plates K and J to reduce the friction incident to the movements of the latter with the levers I. The plate K is also connected to the body H by a bolt *h* and is held at the proper distance from said body by a spacing-lug *i*, mounted on the bolt *h* and interposed between the body and the wood strip. Said bolt *h* and spacing-lug *i* both extend loosely through a curvilinear slot *j* in plate J. By virtue of this the plate K and bolt *h* are enabled to effectually prevent lateral play or

lost motion of the levers I and this without retarding the swinging movements of said levers or increasing the friction incident thereto.

5 M is a rod arranged in sleeves *k* on the plate J and connected by a universal joint *l* to the rod F, and N is a pouncing-pad mounted on the rod M between a collar *m* and nut *n* thereof. Said pad comprises a body and a
10 pad proper. (Best shown in Figs. 9 to 11.) The body is made up of end blocks *p*, preferably of wood, which are loosely mounted on rod M, outside the sleeves *k*, so as to be free to rock on said rod, longitudinal rods *q*, ar-
15 ranged side by side and secured at their ends in the blocks *p*, and pad backing-strips *r*, which are preferably of sheet metal and are arranged side by side and loosely mounted, so as to rock on the rods *q*. The pad proper,
20 which is faced by sandpaper *s*, is formed by a layer of hair *t*, arranged at its ends in rabbets *u* of the blocks *p*, and strips *v* of felt or other suitable material interposed between the hair layer and the rock strips *r* and hav-
25 ing for their purpose to prevent the rocking movements of said strips *r* from disintegrating the hair layer. Said strips *v* have for an additional purpose to prevent the hair layer from extending inwardly beyond the rock
30 strips *r* when said strips are rocked inwardly. The hair layer is secured in the rabbets *u* of blocks *p* by plates *w*, which, together with the sandpaper *s*, is connected to the blocks by clips *x*, fixed on the blocks by set-screws
35 *y*. Sandpaper or other pouncing material *s* is applied to the pouncing-pad from a roller *z*, which is mounted in a bail-support *a'*, secured on the rod *b*, and is subject to the action of a tension device *b'*, the purpose of which
40 is to prevent undue or casual unwinding of the sandpaper. This manner of supplying sandpaper to the pouncing-pad is desirable, because when the portion of paper facing the pad has become deteriorated from use it may
45 be replaced with a fresh portion of paper by simply loosening the screws *y*, drawing the paper through the bails *x* to the extent necessary, tightening the said screws *y*, and tearing off the deteriorated portion of paper.
50 When the pouncer is moved up the side of a hat and over the tip thereof after the manner before described, the resilient support G of the pouncer yieldingly presses the pouncing-pad against the hat. This, together with
55 the fact that the pouncing-pad is free to rock on the rod M, enables the said pad to properly accommodate itself to the curvature or contour of the hat, which conduces very materially to the thorough pouncing of the same.
60 The pad is also enabled to conform to the curvature of a hat-body, especially where the sides of the same merge into the tip, by virtue of the pad proper being backed by the rock strips *r*. These strips *r* when the pad reaches
65 such point of the hat being operated on yield or rock inwardly after the manner shown in Fig. 11, and thereby enable the pad proper

to curve inwardly and exactly conform to the contour of the hat. The extent of the curv- 70
ing or depression of the pad proper is gov-
erned by the curvature of the hat, and hence
it follows that when the pad is operating
against a flat or substantially flat surface of
a hat the pad proper and its backing-strips *r*
will assume the positions shown in Fig. 10. 75

During the travel of the pouncer-pad N up the sides and over the top of the hat the said pad is continuously reciprocated through the medium of the rod F, and hence the abrasive face of the pad is rubbed to and fro over the 80
hat. Incident to its endwise movements the pad N is by reason of its connection to the body H through the swinging levers I moved crosswise or in the direction of its width, the crosswise movement incident to the forward 85
endwise movement being of course in a direction opposite to the crosswise movement incident to the rearward endwise movement. By virtue of the pouncing-pad being thus moved endwise and crosswise simultaneously 90
it is enabled on each stroke to act upon a comparatively large portion of the hat being pounced and its abrasive action is improved, with the result that the pouncing operation is materially accelerated. 95

Having thus described my invention, what I claim is—

1. A pouncing-pad, the pad proper of which is backed by yielding strips arranged side by side against the pad proper, substantially as 100
specified.

2. A pouncing-pad, the pad proper of which is backed by yielding strips disposed at opposite sides of a center of the same, substantially as specified. 105

3. In a pouncing-pad, a body, a pad proper arranged on and connected to the body, and a rock strip journaled in the body and backing the intermediate portion of the pad proper, substantially as specified. 110

4. A pouncing-pad, the pad proper of which is backed by rock strips disposed at opposite sides of a center of the same whereby said pad proper is enabled to give inwardly, substantially as specified. 115

5. A pouncing-pad comprising a body, a pad proper, and rock strips journaled in the body and arranged side by side in rear of the pad proper, substantially as specified.

6. A pouncing-pad comprising a body made 120
up of end blocks and longitudinal connecting-rods, a pad proper, longitudinal rock strips loosely mounted on the rods and arranged side by side behind the pad proper, and means for securing the pad proper on the body, sub- 125
stantially as specified.

7. A pouncing-pad comprising a body having its end blocks provided with rabbets, retaining-plates, a pad proper having its ends arranged in the rabbets of the end blocks and 130
between the retaining-plates and said blocks, a piece of pouncing material arranged over the face of the pad proper, and clips securing said pouncing material and the retain-

ing-plates on the end blocks of the body, substantially as specified.

8. A pouncer comprising a lever, and a pouncing-pad carried by and movable with the levers; said pad having its face arranged in a plane parallel to that of the throw of the lever, and its greatest length disposed in the direction of said throw, whereby it is moved both endwise and crosswise incident to the throw of the lever, substantially as specified.

9. A pouncer comprising levers, and a pouncing-pad loosely mounted and susceptible of rocking transverse on the levers; said pad having its face arranged in a plane parallel to that of the throw of the levers, and its greatest length disposed in the direction of said throw, whereby it is moved both endwise and crosswise incident to the throw of the lever, substantially as specified.

10. A pouncer comprising a body, levers pivotally connected and movable over the face of the body, and a pouncing-pad connected and movable with the levers; said pad having its face arranged in a plane parallel to that of the throw of the levers, and its greatest length disposed in the direction of said throw, substantially as specified.

11. A pouncer comprising a body, levers pivotally connected to and movable over the face of the body, and a pouncing-pad loosely mounted and susceptible of rocking transversely on the levers and having a pad proper and a backing therefor consisting of rock

strips; said pad having its face arranged in a plane parallel to that of the throw of the levers, and its greatest length disposed in the direction of said throw, substantially as and for the purpose specified.

12. A pouncer comprising a body, levers pivotally connected thereto, and a pouncing-pad connected to said levers and having its greatest length disposed in the direction of the throw thereof, substantially as specified.

13. A pouncer comprising a resilient support, a body connected to said support, levers pivotally connected to the body, and a pouncing-pad carried by and movable with said levers, substantially as specified.

14. A pouncer comprising a body, levers pivotally connected to the body and movable over the face of the same, a plate J arranged at the opposite side of the levers with reference to the body and movable with said levers; said plate having a curvilinear slot, a plate K, a connection between the plate K and body extending through the slot of plate J, a rod, and a pouncing-pad loosely mounted and adapted to rock on said rod, substantially as specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES H. REID.

Witnesses:

JABEZ AMSBURY,
URBANE B. DUNAWAY.