

(No Model.)

2 Sheets—Sheet 1.

F. C. KIMBALL.

HARNESS SADDLE.

No. 345,237.

Patented July 6, 1886.

Fig. 1.

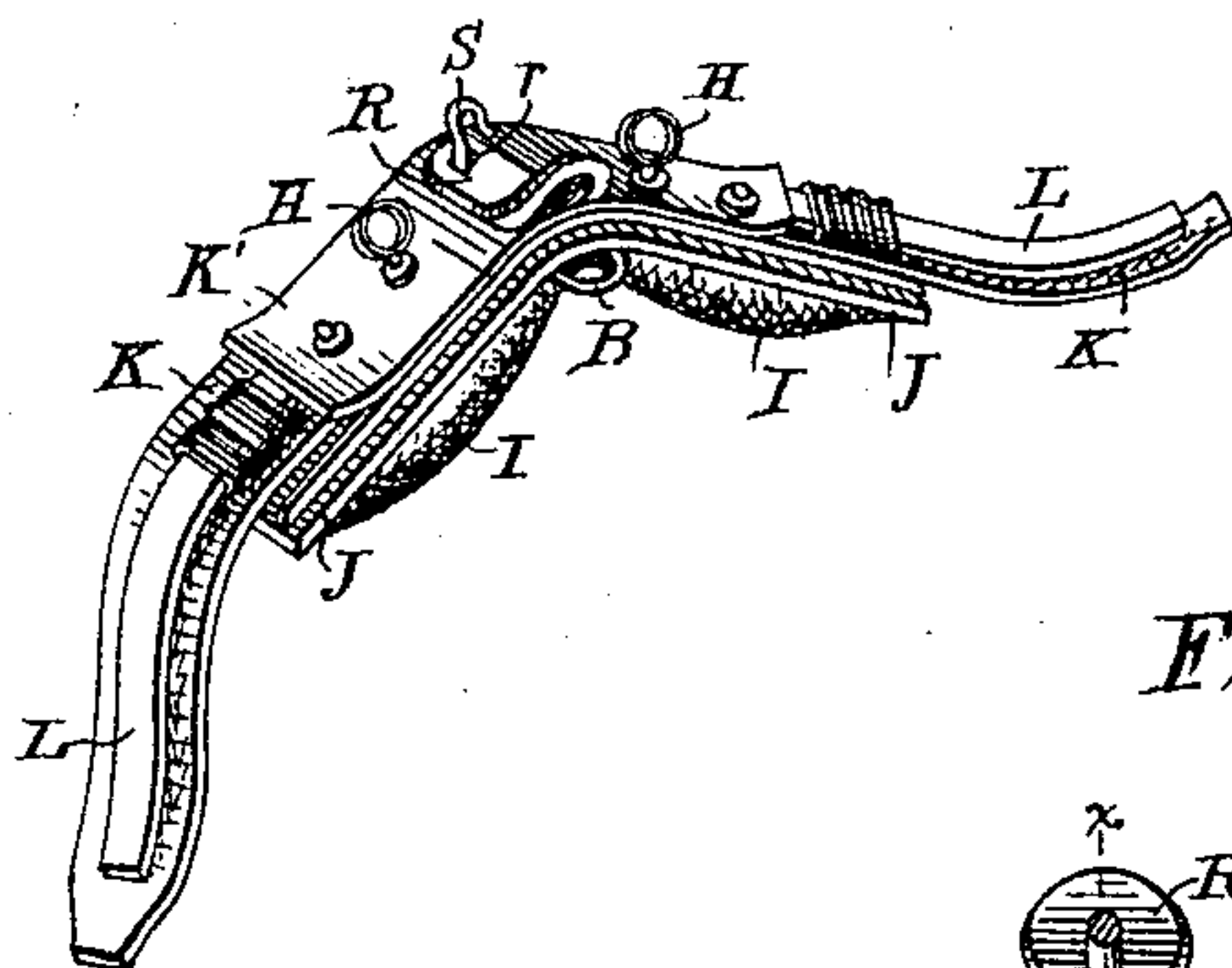


Fig. 2.

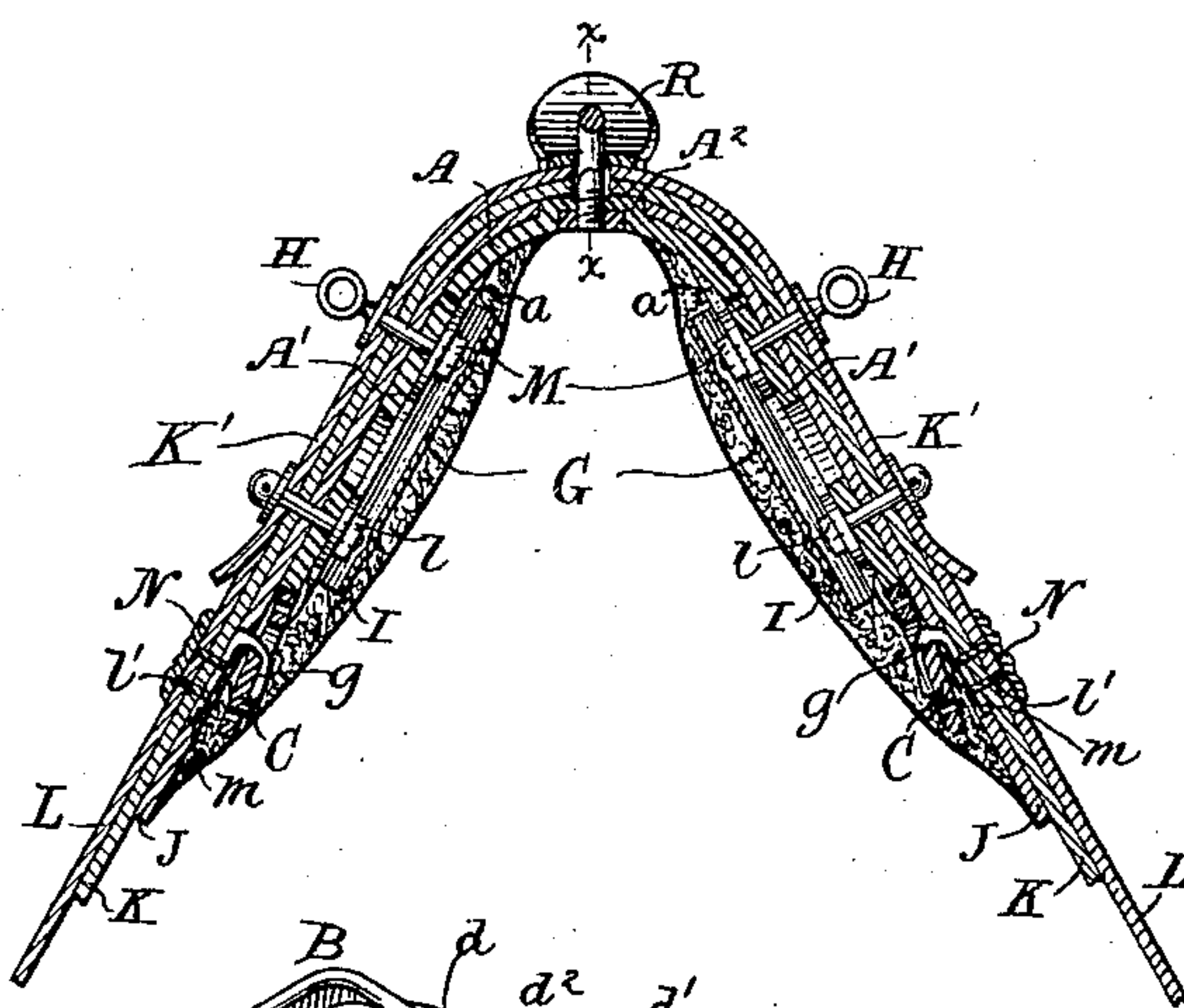


Fig. 3.

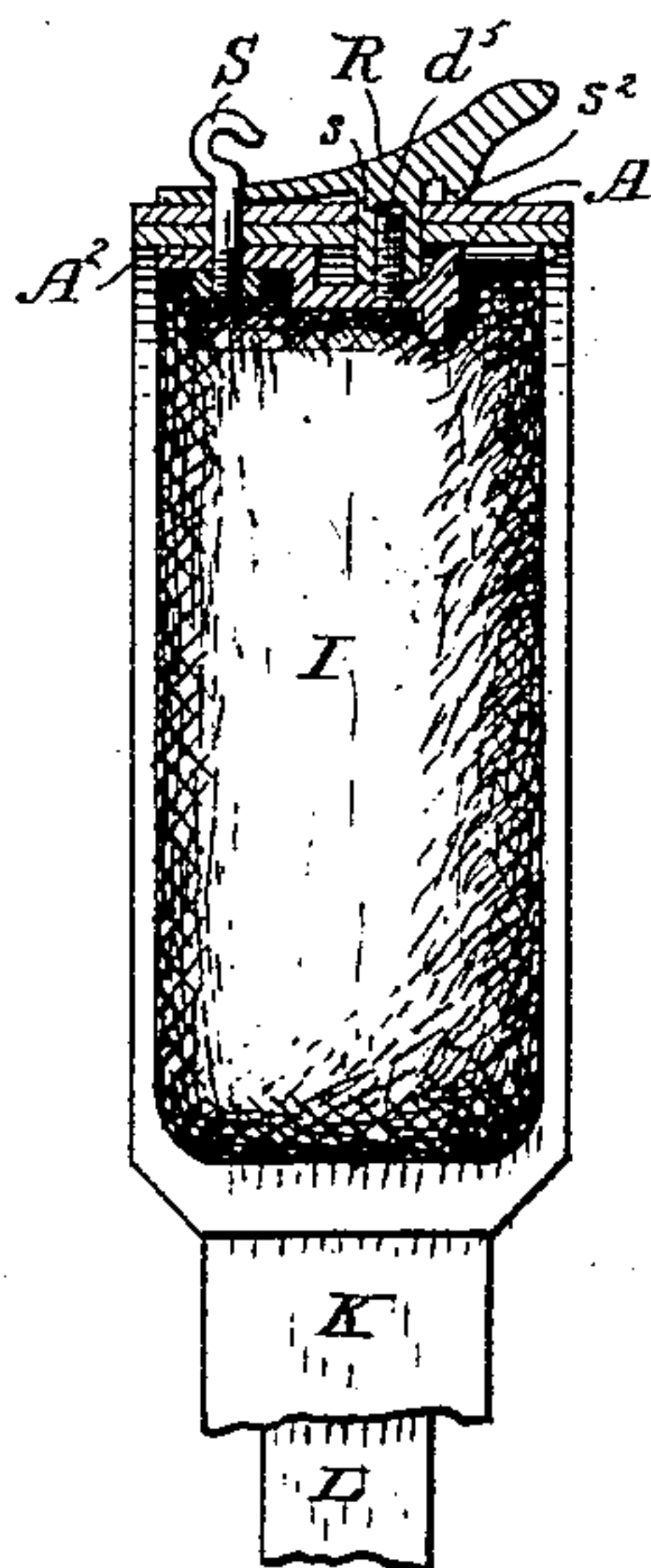
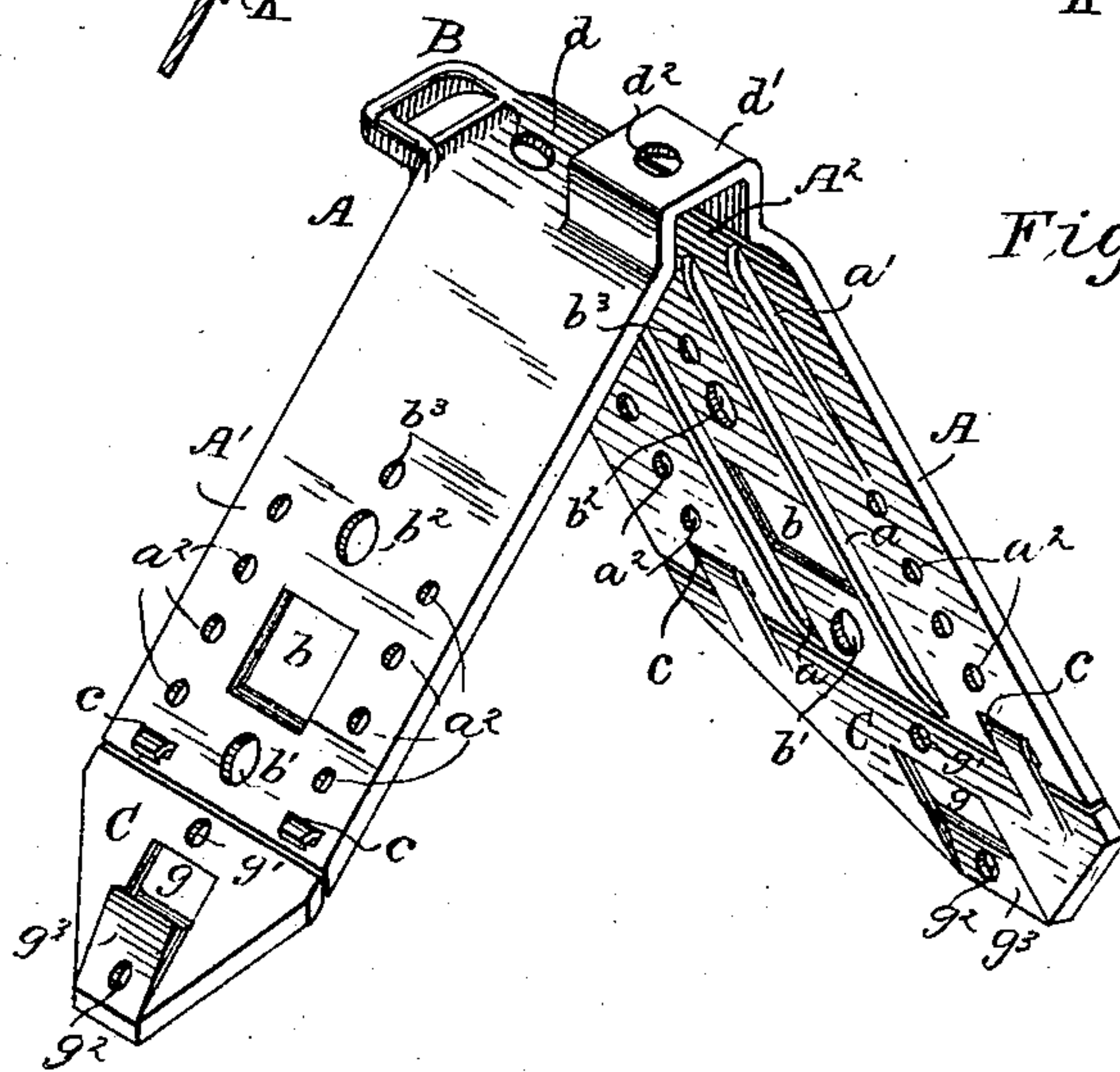


Fig. 4.



Witnesses

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Fig. 5.

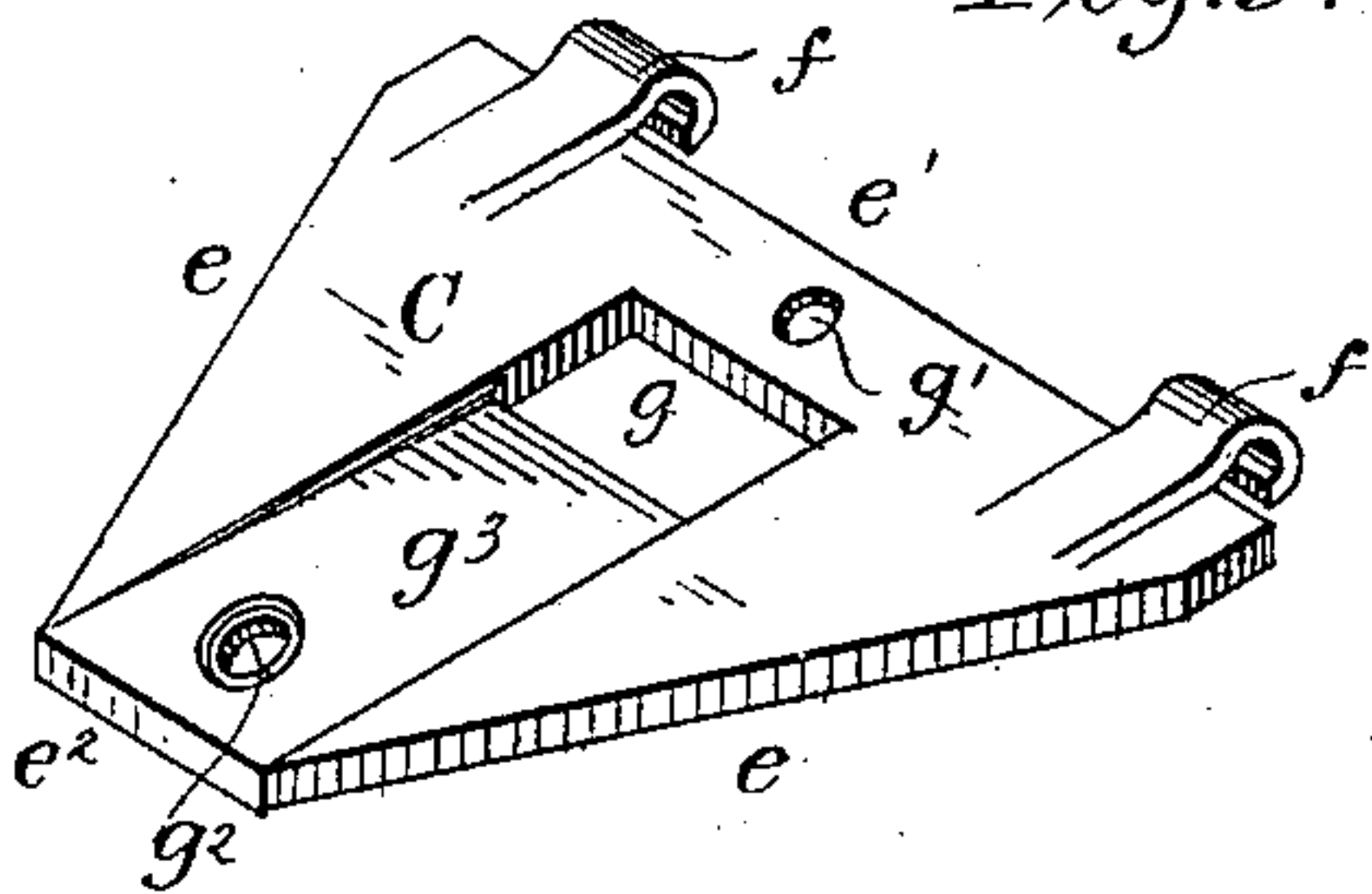


Fig. 6.

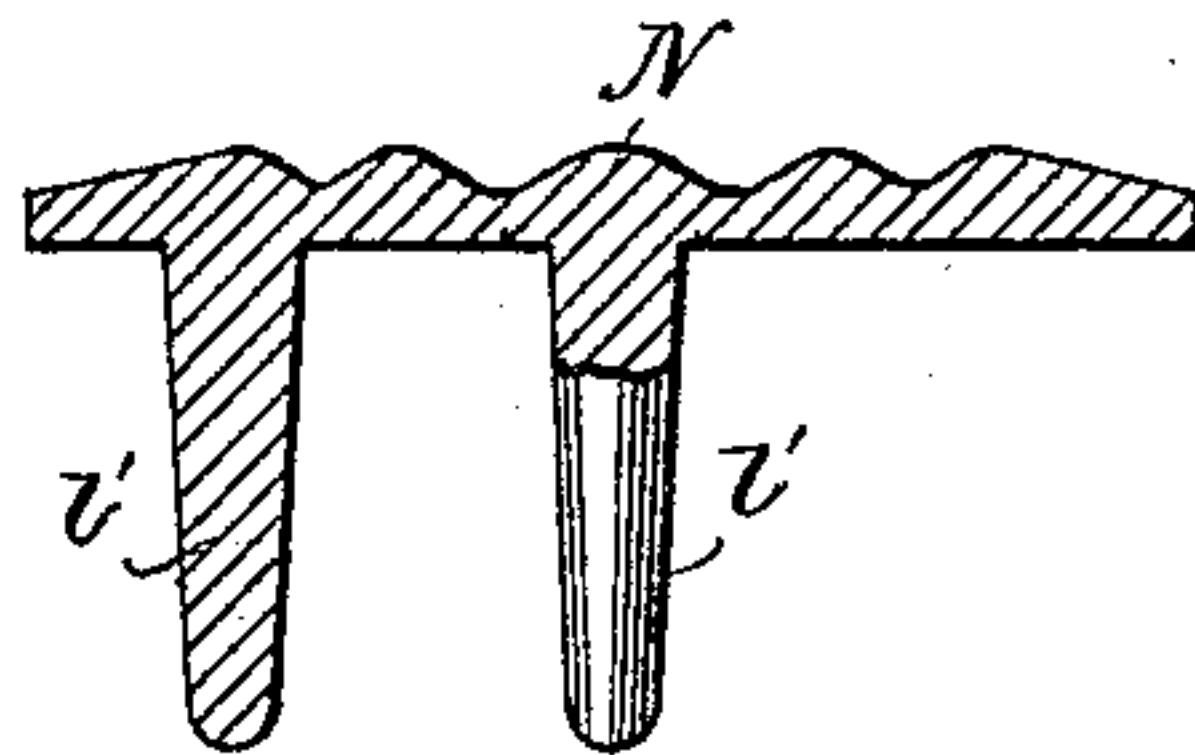


Fig. 7.

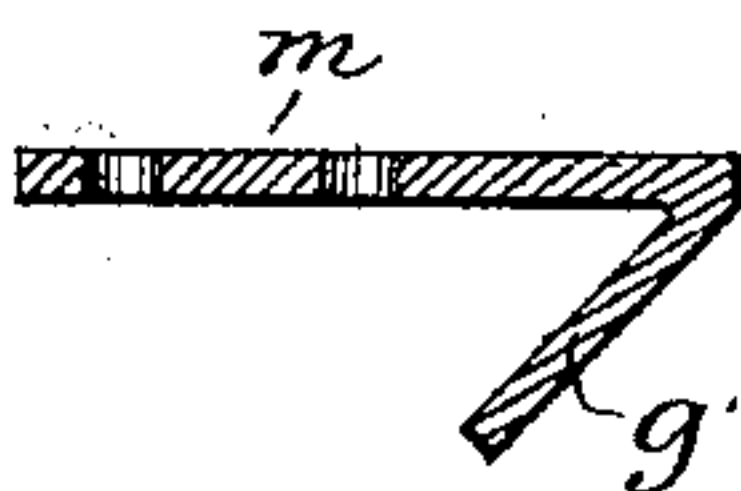


Fig. 8.

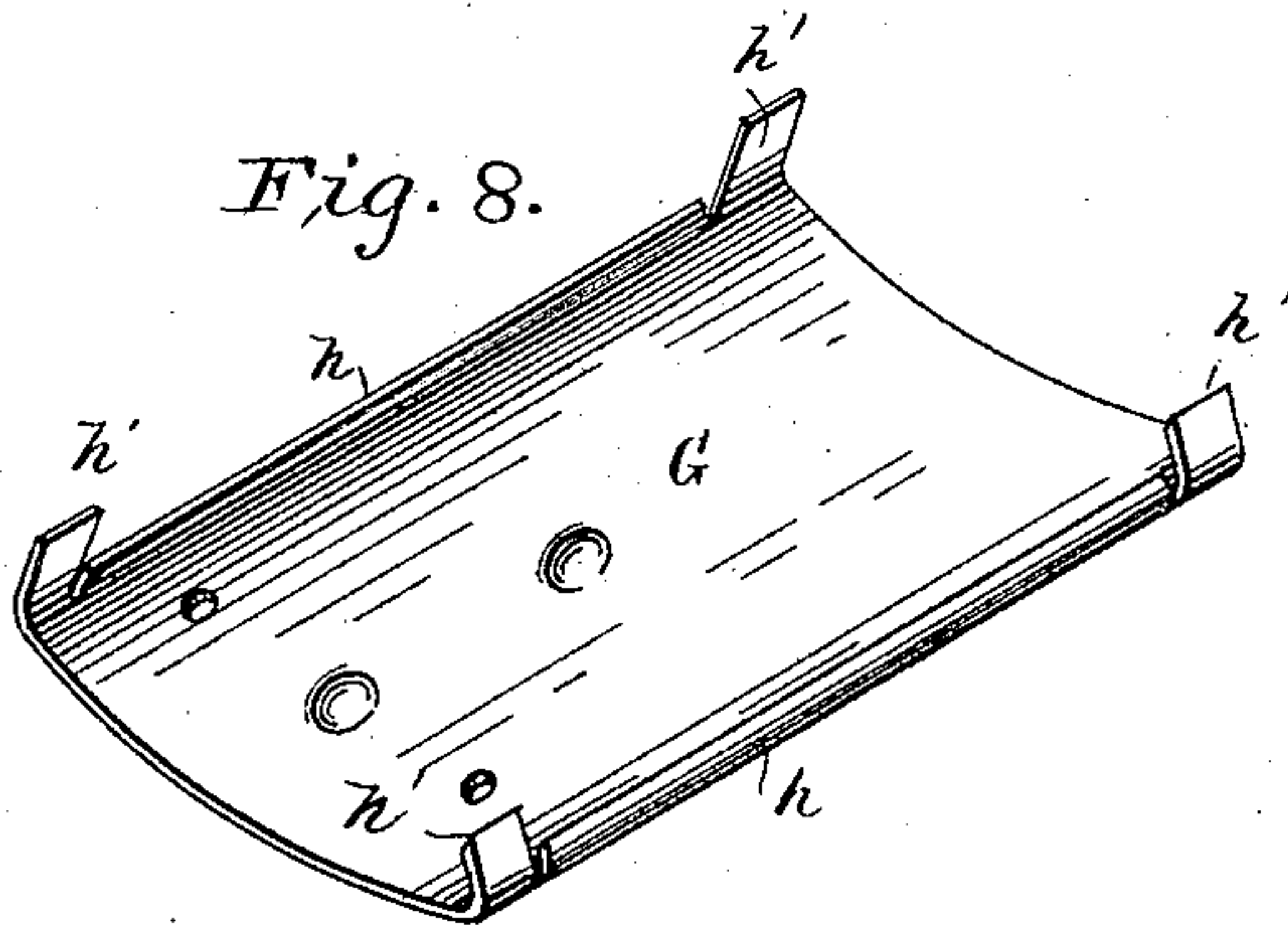


Fig. 9.

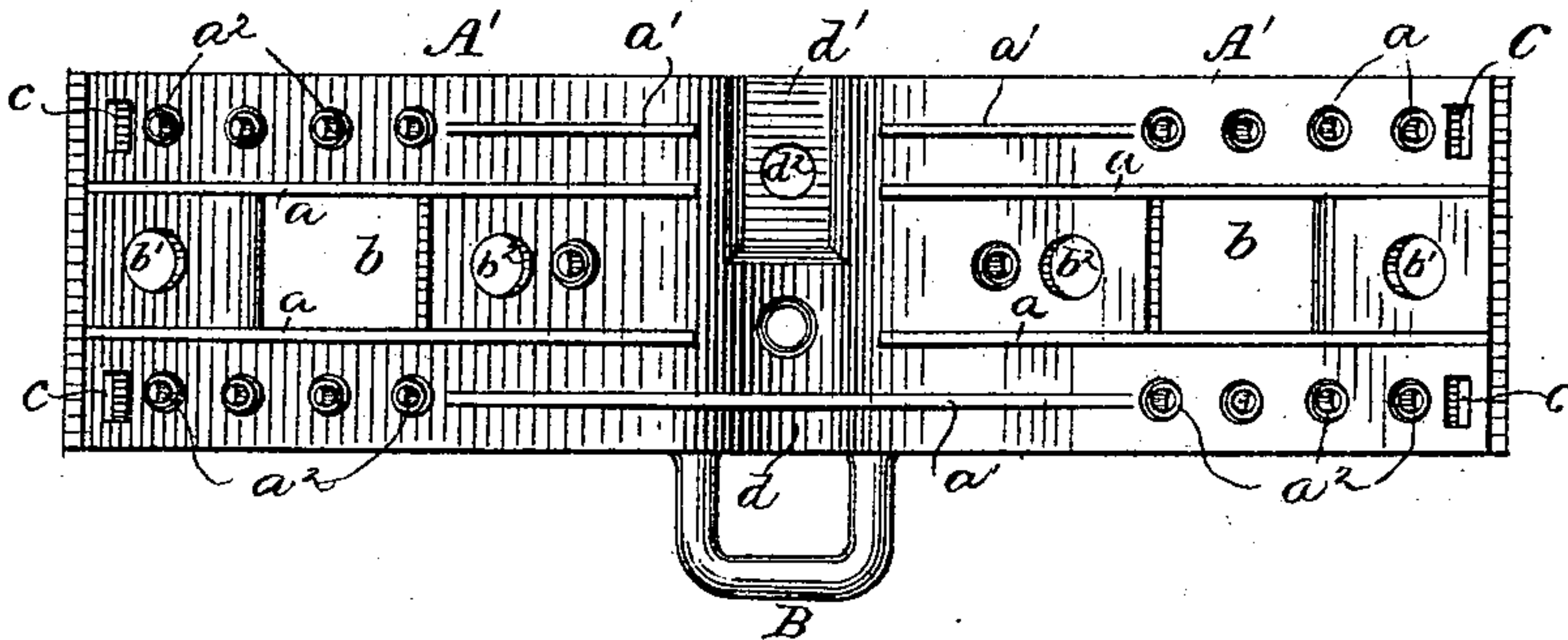
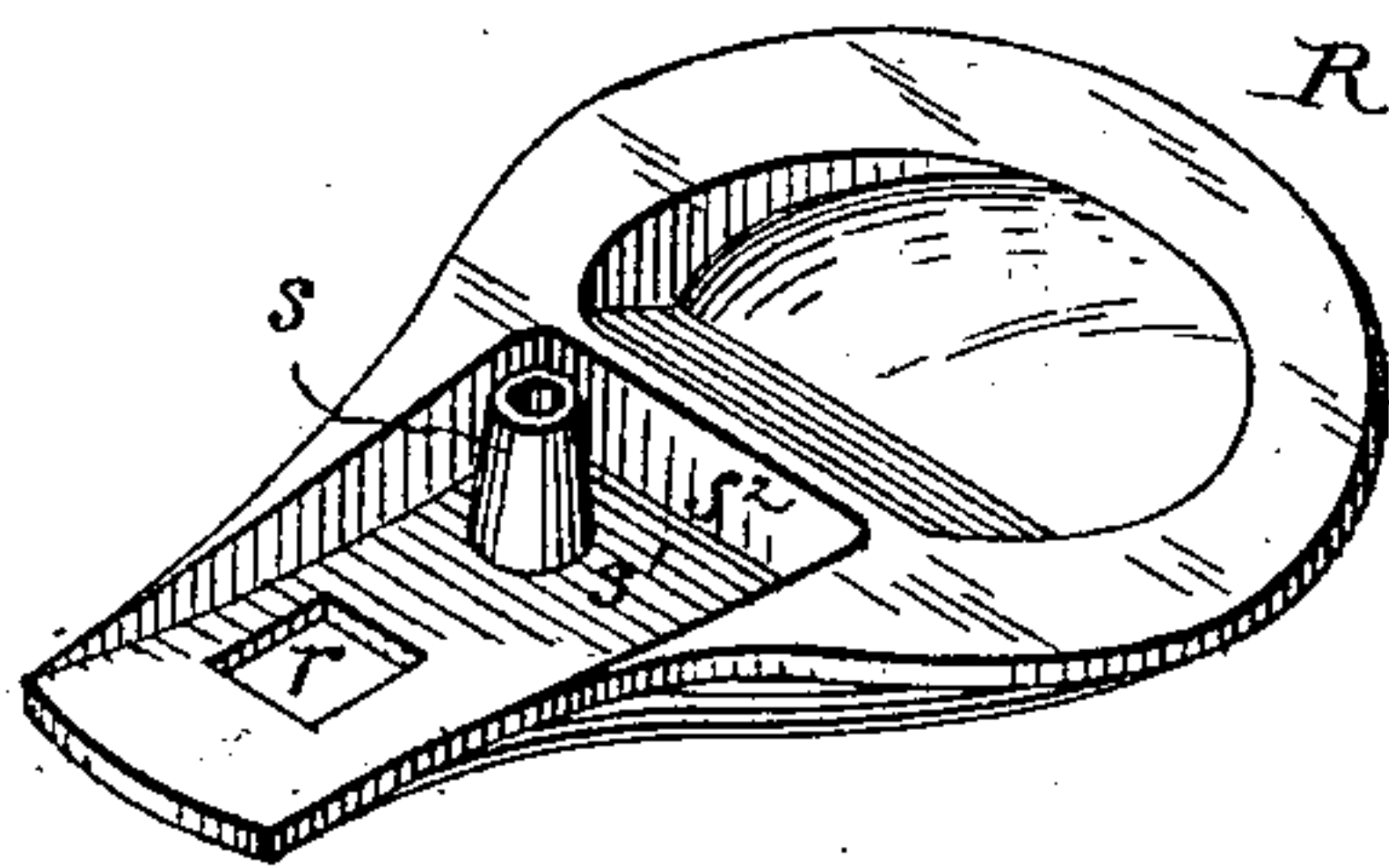


Fig. 10.



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UNITED STATES PATENT OFFICE.

FREDDIE C. KIMBALL, OF JACKSON, MICHIGAN, ASSIGNOR OF ONE-HALF
TO A. N. HOVEY AND E. H. HOVEY, OF SAME PLACE.

HARNESS-SADDLE.

SPECIFICATION forming part of Letters Patent No. 345,237, dated July 6, 1886.

Application filed March 20, 1886. Serial No. 197,672. (No model.)

To all whom it may concern:

Be it known that I, FREDDIE C. KIMBALL, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Harness-Saddles; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a perspective view of my improved coach or harness pad complete, and on a small scale. Fig. 2 is a vertical section taken centrally through the improved harness-pad transversely. Fig. 3 is a vertical cross-section through the mesial line of the pad, indicated by broken lines *x x* on Fig. 2. Fig. 4 is a perspective view of the metallic skeleton saddle-tree without leather attachments, and showing the detachable articulating wings or terminal strengtheners. Fig. 5 is a perspective view of one of the said articulating wings detached. Fig. 6 is a detail enlarged, showing the flanged ornamented loop with its rivet-pins cast with it. Fig. 7 is a detail in section, showing the angular coupling-hook. Fig. 8 is a perspective view of the thin metal shield, showing its longitudinal flanges and lips. Fig. 9 is a bottom view of the saddle-tree, showing its several ribs; and Fig. 10 is a perspective view of the bottom of the saddle.

This invention relates to harness-pads and the attachments therefor, which will be fully understood from the following description, when taken in connection with the annexed drawings.

A designates a metallic saddle-frame, which is made of cast or forged metal, and so shaped as to form a tree or basis for the pads and other portions of the device which I am about to describe. This tree, as usual, consists of two wings, *A' A'*, which, with the saddle-supporting portion *A²*, are preferably cast entire, and on the bottom side of each wing *A'* are formed long ribs *a a*, parallel to each other, and ex-

tending from the base of the arched portion *A²* to the terminus of the wing, as clearly illustrated in Fig. 9 of the drawings. From the base of said arch, and exterior to and parallel with the said longitudinal ribs, are two shorter ribs, *a' a'*, which may be tapered at their outer extremities. The longitudinal intermediate ribs, *a a*, may be tapered at their outer extremities. At *b* a rectangular opening is made between the ribs *a a*; also large holes *b' b'*, and above *b²* a smaller countersunk hole, *b³*, are made between the said intermediate ribs, *a a*, for purposes which will be hereinafter explained. External to the ribs *a a*, and below the short ribs *a' a'*, a number of holes, *a²*, are formed, which may be countersunk interiorly. Near the terminal ends of this rigid tree slots *c c* are made, either in the act of casting or afterward, for a purpose hereinafter described.

In the arched rigid metal tree the peculiarities of construction are as follows: The loop *B*, which is for the back-strap to the crupper, is slightly upset, both backward and upward, so that a transverse depression, *d*, is formed between its anterior roots and a vertical elevation or saddle-seat, *d'*, through the center of which is an aperture, *d²*, countersunk below to receive the tang of the check-line hook. The saddle or seat *R* is formed with a thin tapered front portion, which has a bearing upon the leather covering the saddle-tree directly over the raised portion *d'*, and which is angularly perforated at *r*, to receive the shank of the check-hook *S*, that is rigidly confined in place by a nut, as shown in Fig. 3. In rear of the perforation *r* through the saddle or seat *R* a boss, *s*, is cast, which projects from the bottom recessed portion, *s'*, in front of a cross-rib, *s²*, and is tapped to receive a screw, *d³*, that is passed up through the depressed portion of the arch of the saddle-tree, and rigidly holds the saddle-seat to the tree in rear of the check-hook attachment. The boss *s* affords a long bearing for the screw *d³*.

The sectional portions of the ribs above referred to may be made separate from the cast tree, and soldered or brazed thereto; or the tree, as above described, may be cast entire.

C designates an angular terminal portion for

each wing of the tree. This wing I consider of vital importance in carrying my invention into effect. It may be cast entire. It consists of a tapered plate presenting four sides, $e e e'$ 5 e^2 . The base e' of the triangle has two hooking portions, $f f$, protruding from it, which are adapted to engage with the slots $c c$, above described, and to form articulating joints. Thus it will be seen that the rigid tree has 10 attached to its wings flexible extensions which allow the terminal portions thereof to comfortably adapt themselves to the back of the animal. Each terminal articulating portion C is provided with a perforation, g , of rectangular form, as shown in Fig. 5, diametrically 15 opposite which are perforations $g' g^2$, the latter being on an inclined depression, g^3 , as also shown in said figure.

I will now explain the method of upholstering this improved tree and the attachments thereto belonging.

G designates my improved thin metal shield, which is flanged at $h h$, and especially designed for preventing the ends of the screws of the 25 terrets H H and binding-nuts M M from impinging against the cushioning portions of the pads I I. This shield embraces the edges of each wing of the tree, and it is preferably concavo-convex laterally, and perforated to 30 receive the ends of tacks which are used in fastening the filling and pads to the tree.

J J designate the stuffed pad-leather packing, and K is the girthing, upon which is the stitched leather ornamental facing K'. Between this facing and the girth or belly-band 35 is the strap L, (thill strap,) which is perforated and receives through it the screw-shank of the terret, which shank is tapped into a nut, l , seated into the recess, above described, in the 40 wing of the tree. The binding-nut M is similarly applied to the tree, as shown in Fig. 2 of the annexed drawings.

It will be observed that I have two apertures, $b b^2$, through each saddle-tree wing, near the 45 rectangular opening b , which holes register with corresponding holes through the belly-band strap, and are adapted to receive the screw-shanks of the terret and binding-nut, which shanks are tapped into the nuts l , as 50 above described. Thus it will be seen that

the terret and binding-nuts are interchangeable, and that I can use the terret either in the upper or lower holes, as may be desired.

The thill-strap L is rigidly and safely secured to the girth K by means of a malleable- 55 metal ornamented loop or staple, N, which embraces the top and edges of the said strap L, and is constructed with rivet-extensions $i' i'$, that penetrate strap L, and also the shank of a hook, m . These two portions—to wit, the 60 loop or staple N and the hook m —are riveted to the strap L. The hook m is designed to engage with the articulating angular terminal portion C, and it is received in the angular recess therein, above described. It will thus 65 be seen that in addition to the usual fastening for the thill-strap I also provide for positively sustaining the thills by means of articulating portions of the tree.

Having described my invention, I claim— 70

1. The combination, with the saddle-tree slotted as described, of articulating wing-extensions C, substantially as described.

2. The wing-extensions C, hinged to the saddle-tree and having hooking portions f , a 75 perforation, g , and an inclined depression, g^3 , substantially as described.

3. The combination of a saddle-tree ribbed, perforated, and arched, as described, of the saddle R, having a screw-tapped boss, the 80 screw and check-hook fastenings therefor, and the flanged and lipped shields G, substantially as described.

4. The combination, with a saddle-tree having its wings slotted as described, of the articulating wing-sections, perforated as described, 85 the staples N, having rivet-extensions, and the hooks $m g'$, engaging with the said extensions, substantially as specified.

5. The combination, with the rigid saddle-tree wings, of articulating extensions C therefor, the staples N, and the hooking portions thereof attached to said extensions, substantially as described. 90

In testimony whereof I affix my signature in 95 presence of two witnesses.

FREDDIE C. KIMBALL.

Witnesses:

HORACE HUNT,
EDDY H. HOVEY.