

No. 614,476.

Patented Nov. 22, 1898.

E. W. JOHNSON & E. B. MARSH.

COAT AND HAT HOOK.

(Application filed Aug. 13, 1897.)

(No Model.)

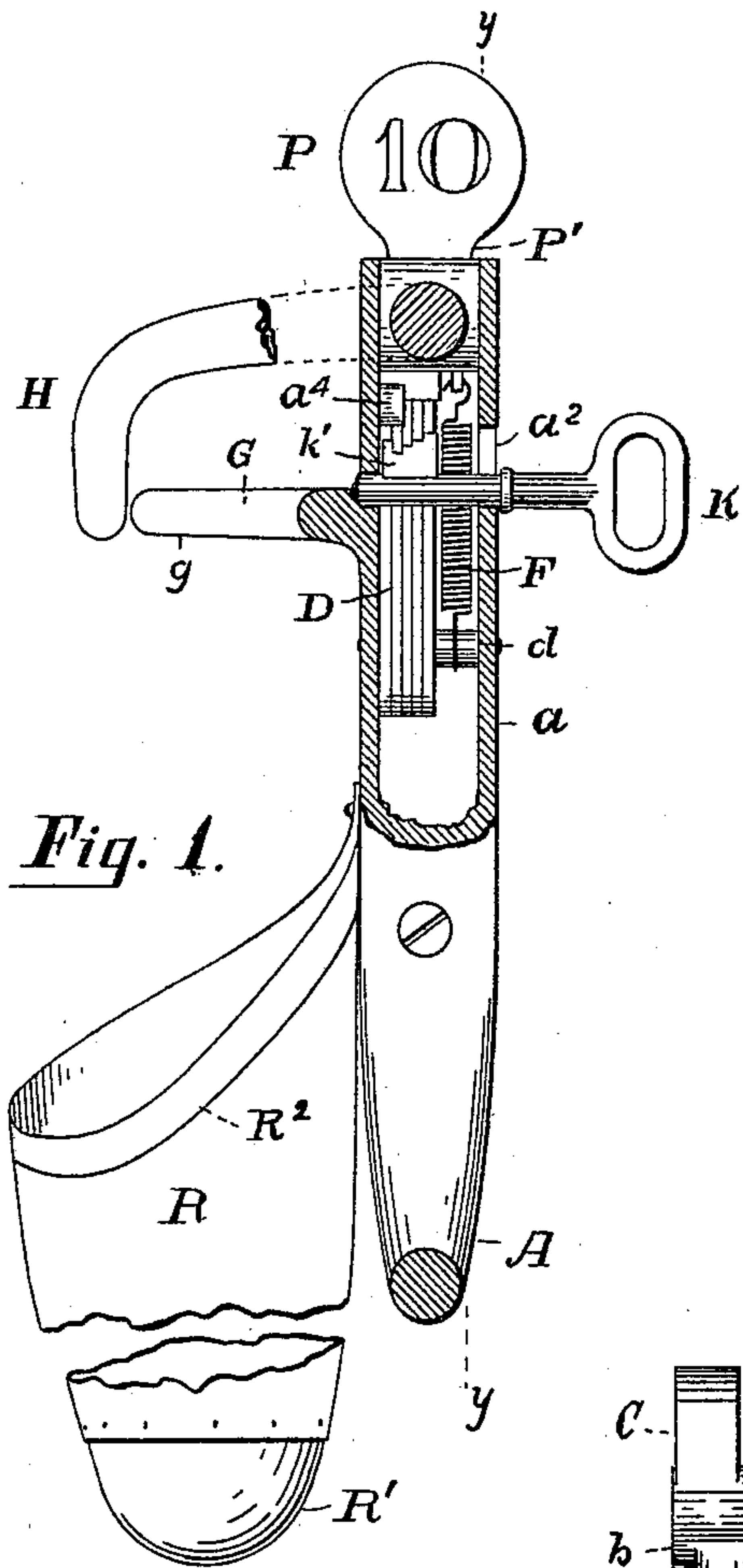


Fig. 1.

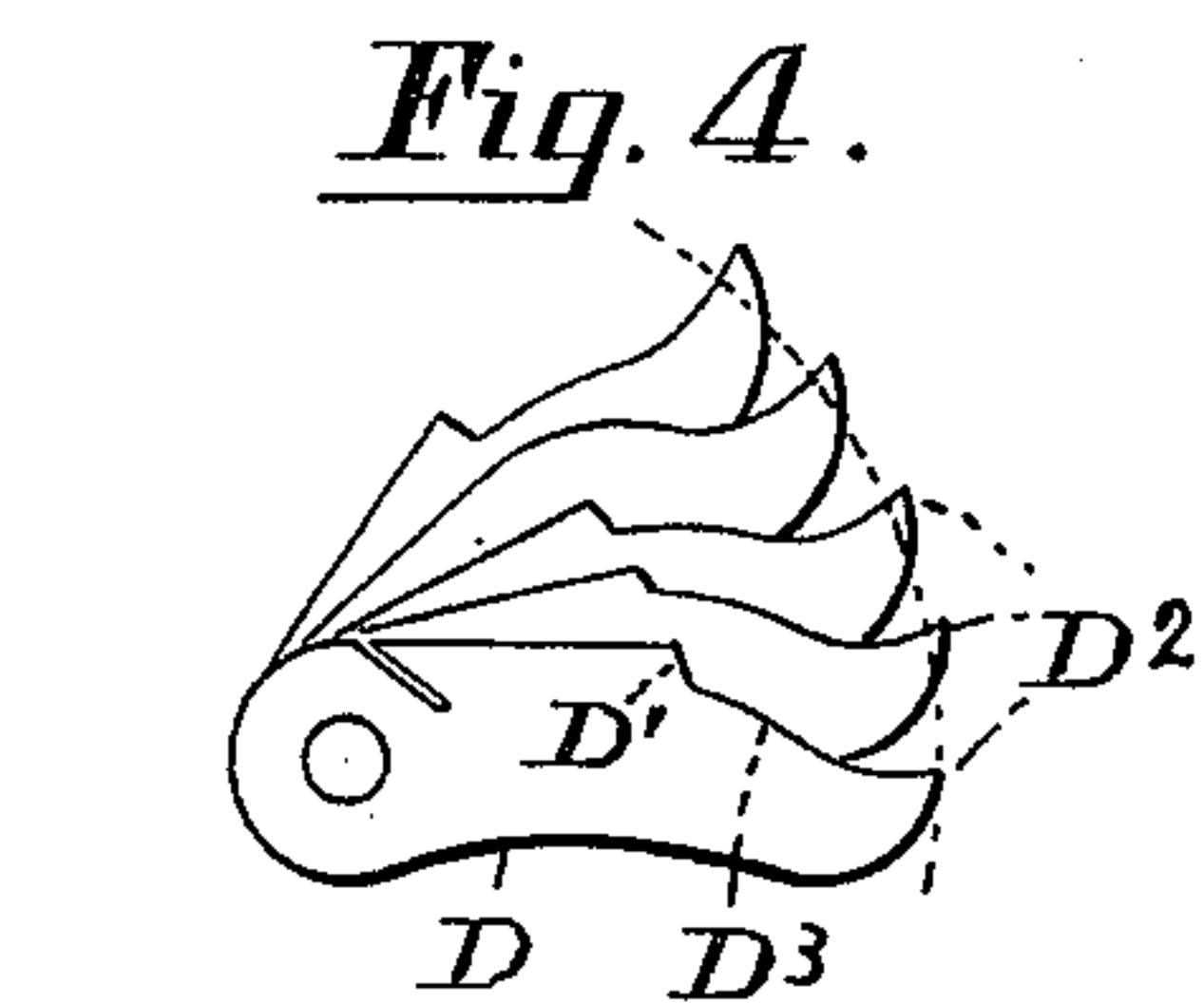


Fig. 4.

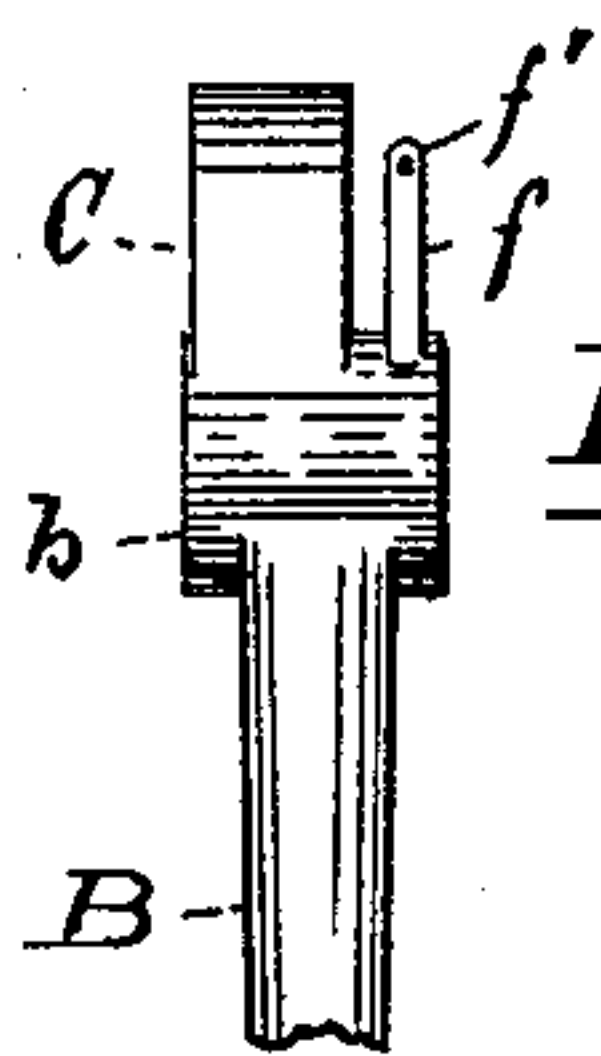


Fig. 5.

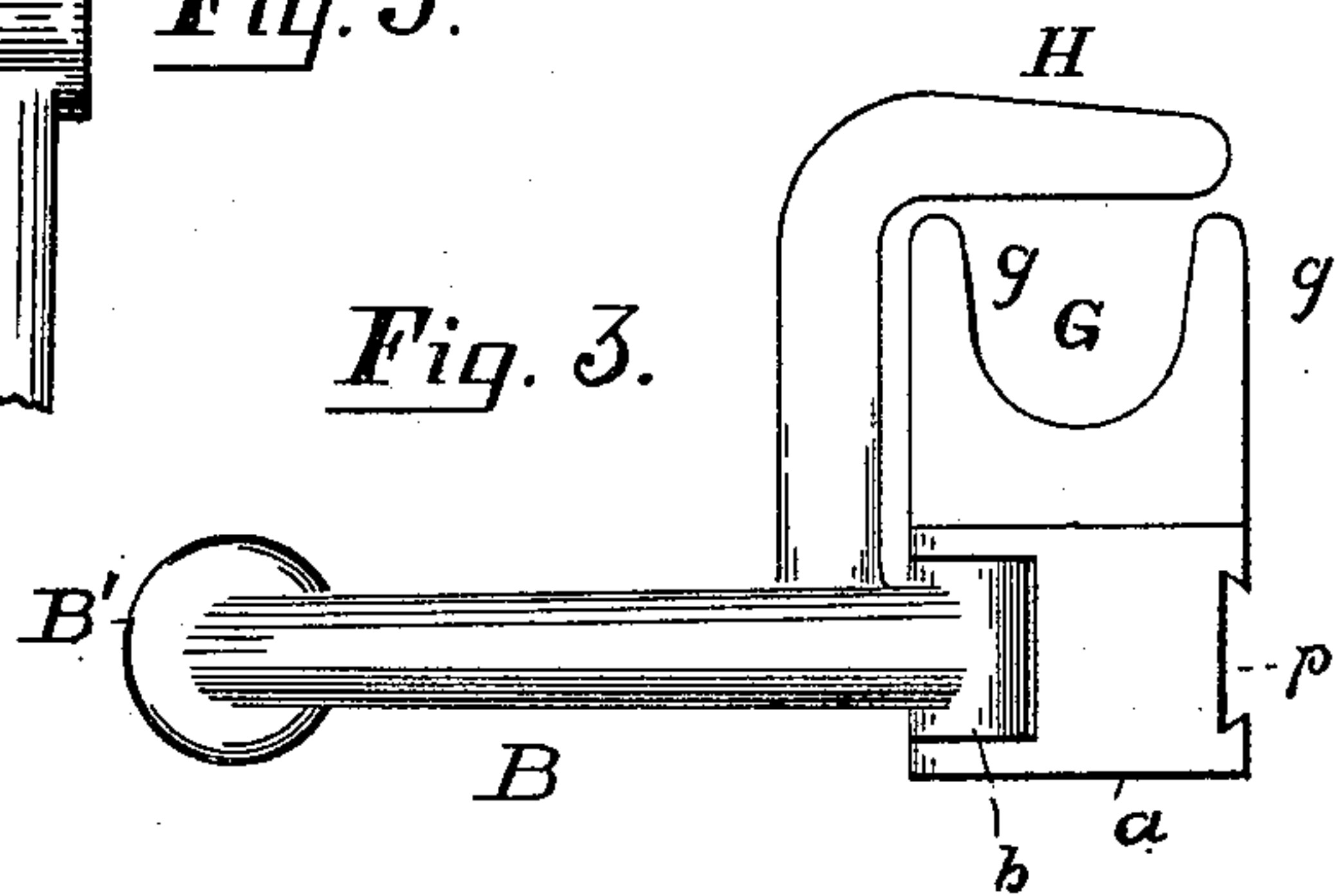


Fig. 3.

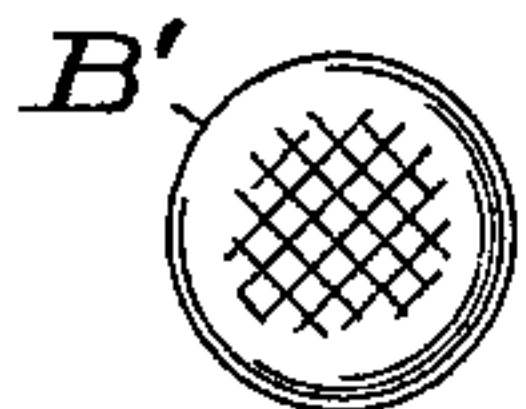


Fig. 6.

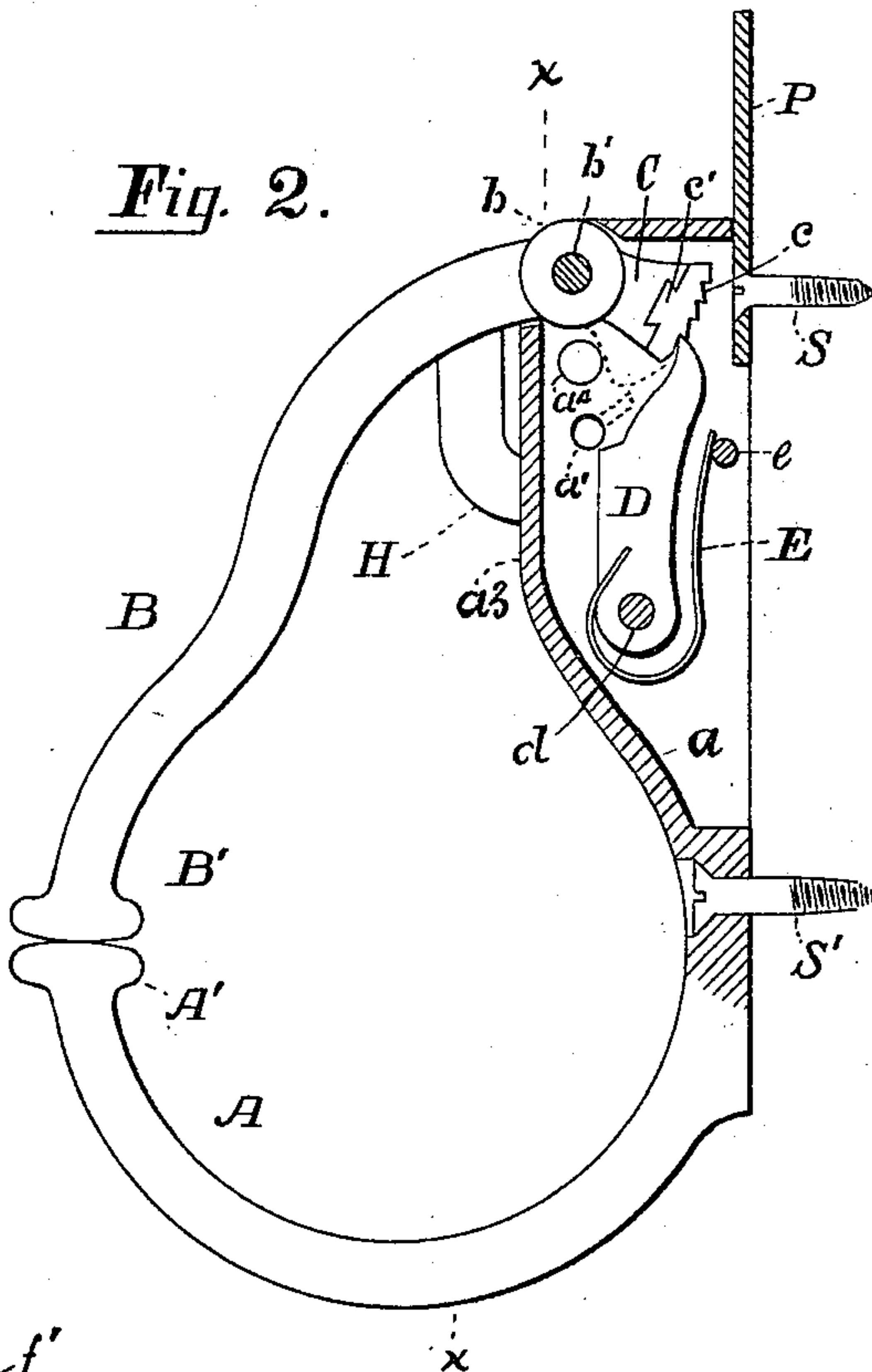


Fig. 2.

Witnesses,

M. U. Upham.

F. E. Celler

Inventors,

Everett W. Johnson,

Edward B. Marsh,

by A. B. Upham,
Attorney

UNITED STATES PATENT OFFICE.

EVERETT W. JOHNSON, OF BOSTON, AND EDWARD B. MARSH, OF LEXINGTON,
MASSACHUSETTS.

COAT AND HAT HOOK.

SPECIFICATION forming part of Letters Patent No. 614,476, dated November 22, 1898.

Application filed August 13, 1897. Serial No. 648,149. (No model.)

To all whom it may concern:

Be it known that we, EVERETT W. JOHNSON, residing at Boston, (Charlestown district,) in the county of Suffolk, and EDWARD B. MARSH, residing at Lexington, in the county of Middlesex, State of Massachusetts, citizens of the United States, have invented a new and useful Coat and Hat Hook, of which the following is a full, clear, and exact description.

10 This invention is in the line of coat and hat hooks in which the articles supported thereby can be easily locked in place and thereby be prevented from unwarranted removal; and it relates to simple and effective means where-
15 by the hook is provided with a combination-lock incapable of picking, means for enabling the locking-arm to possess a large number of locking-points and thereby be capable of
20 accommodating different quantities of garments, means for preventing the removal of the key after the hook has been unlocked, means for adapting the hook for confining umbrellas, and various other improvements
25 in general construction. These improvements are effected by means of the construction illustrated in the drawings, forming part of this specification, and in which—

30 Figure 1 is a sectional elevation of the device through X X in Fig. 2. Fig. 2 is a sectional elevation through Y Y in Fig. 1. Fig. 3 is a plan view. Fig. 4 is a detail view of the lock-tumblers, and Figs. 5 and 6 detail views of the locking-arm.

Referring to Fig. 2, A indicates the hook,
35 cast integral with and at the lower end of the casing *a*. The locking-arm B is pivoted at upper end of the casing by means of a pin *b'*, passing through the casing and the hub *b*. The ends of said hook and arm are formed
40 with the flattened and rounded heads A' and B', the object of which is, in the first place, to prevent any possibility of a garment hung over the end of the hook from being torn by the latter, to prevent a coat from being sus-
45 pended by the small loop usually provided at the neck, and, further, to retain a hat more securely in place, especially a derby. This last advantage is accomplished by the broad flattened head B' refusing to fit into the cor-
50 ner between a hat's crown and rim, and thereby preventing the hat from being worked out

from between the hook and arm. The prevention of the use of the usual coat-loop is achieved simply by the head A' being so large as not to pass freely through said loop, and
55 the desirability of causing the coat to be hung bodily over the hook instead of suspended by the loop is that the latter can so easily be cut or broken by a sneak thief and the garment
60 stolen.

Our means for securing this device to a wall or other fixed support comprise the screws S S'. The screw S' is inserted through the body of the hook and casing, but the screw S passes through the removable plate P, which
65 is provided with the dovetail neck P', fitting in the correspondingly-formed groove *p*, made in the rim of the casing *a*. Said groove is shown more clearly in Fig. 3. The main purpose of the said plate is to receive a number,
70 which being also affixed to the key designates the proper hook to which the key belongs. This aids greatly in quickly finding one's garments, a glance at the key or its attached tag showing the location of the hook holding the
75 same. In attaching the hook to a wall the plate P is first screwed thereto, and then the groove *p* of the casing is applied to the dovetail neck thereof and pressed up into the position shown in Fig. 2. This causes the
80 screw S of the plate to entirely conceal said screw and to so mystify any thief that he, knowing there must be other fastenings besides the one visible screw S', would not attempt to remove the hook bodily from the
85 wall.

Our means for locking the arm B comprise the broad toothed segment *c* and the plurality of dogs or tumblers D, engaging the same. The arm B being preferably of cast-brass or
90 what is termed "composition" metal we form the segment *c* of steel and provide it with a dovetail rib *c'*, held by a dovetail groove in the arm C, which is cast integral with the hub *b* and the arm B.

The tumblers D are all mounted on the pin *d* and are each pressed into engagement with the toothed segment *c* by means of a leaf-spring E, held by the post *e*. Five is the
95 preferable number of these tumblers, and of course five is the number of said springs for
100 the same. As indicated in Fig. 4, these tum-

blers vary in length, so that only one at a time will engage a tooth of the segment *c*. Hence if there were but a single tooth on said segment the locking-arm B would have five
 5 different locking-points, one for each tumbler; but inasmuch as said segment is formed with a plurality of teeth, or four, as shown, the arm B has five times four, or twenty locking-points. This multiplication of locking-
 10 points enables this hook to possess a wide capacity, ranging from a single thin coat to several heavy garments and a hat or two additional.

In Fig. 2 the front pawl is shown as hiding
 15 the remaining pawls, while in Fig. 4 the front pawl is not so shown. The object of this dissimilarity is twofold—first, to render the parts in Fig. 2 less liable to confusion in showing by a multiplicity of lines, and, further, to more fully illustrate the permutation
 20 referred to below, which is done by simply shuffling for the different locks the otherwise exactly similar pawls. Fig. 4 therefore illustrates the same pawls as are supposed to be
 25 used in Fig. 2, but rearranged for a second lock.

The key K is here shown as inserted with its web uppermost, the object of which will be shown later on. The key being turned
 30 toward the right its wards engage the tumblers D and press them out of the reach of the toothed segment. As soon as this is done the tension-spring F, which is held at its lower end by the pin *d* and at its upper end by the
 35 arm C, throws the locking-arm B up and away from the hook and leaves the latter in shape to receive whatever garments are wished to be placed thereon. To give this lock the combination or permutation character, the
 40 face or bridge of the key's web *k'* is indented or stepped and the parts of the tumblers D engaged by the same are suitably filed away until no matter what are the variations in the face of the web the points *D*² of the tumblers shall be moved the same distance away
 45 from the segment *c* and the teeth of the latter wholly cleared from possible engagement by said tumblers.

In actual practice we usually form but five
 50 different conformations of tumblers in manufacturing a quantity of these garment-hooks, the desired permutation being obtained by simple differences in arrangement of the tumblers in the various locks.

The reason for the upturned position of the key referred to above is to enable the key to be non-removable from the device when the arm B is in its unlocked position, the key being removable only after the said arm has
 60 been depressed to its garment-securing point. This is to prevent the absent-minded customer of the establishment provided with these garment-hooks from removing the key and dropping it into his pocket when he takes his hat and coat. To accomplish this, the keyhole
 65 *a*² is located at such a point that when the tumblers D have been raised and the arm B

flies up the segment *c* descends into the field of the key's web, as shown in dotted lines in Fig. 2, and thereby prevents the key from re-
 70 turning to its keyhole-slot *a*². The key cannot be rotated in an opposite direction, both on account of the shoulders *D'* of the tumblers against which it impinges and also, were these shoulders not provided, on account of
 75 the insufficient space between the keyhole and the casing-wall *a*³. This is not the primary object of said shoulders *D'*, however, their main purpose being to prevent the key from being turned farther than necessary for
 80 the proper disengagement of the tumblers. Without said shoulders or some other stop the key would, in nine times out of ten, be turned too far and the tumblers permitted to snap back against the segment. Now when
 85 a coat is placed upon the hook and the arm B depressed the latter would lock all right, but upon the attempt to remove the key it would be unlocked and would fly up again, necessitating another attempt. As it is now
 90 the position of the shoulders *D'* is such and the engaging faces *D*³ of the tumblers so curved that said faces are enabled to act upon the key-web after the tumblers have been lifted and impress the said web up and back
 95 far enough to permit the tumblers to rest against the segment *c*. During the interval, however, the locking-arm B has flown up and the hook A left free for the reception of the key-operator's garments, which latter being
 100 put in place the arm B can be depressed and the key removed without further delay. To prevent the locking-arm B from flying up farther than is needed for the application of the garments to the hook A, the casing *a* is
 105 formed with a stop *a*⁴, against which the arm C is adapted to come to rest.

As shown in Fig. 1, the lower end of the tension-spring F is anchored to the pin *d*, while the upper extremity is attached to the
 110 arm C, or preferably to a finger *f*, projecting from the hub *b*, beside said arm C. This latter construction is shown more clearly in Fig. 5, where the width of the arm C is seen to be less than that of the hub *b*, leaving ample
 115 room for said finger *f*, into whose eye *f'* is hooked the end of the spring F.

To enable this garment-hook to be capable of locking umbrellas also, the casing *a* is formed with two lateral projections *g*, between
 120 which is a notch G of suitable size to receive an umbrella-stick. From the locking-arm B projects a supplemental arm H, so curved downward and backward as to pass across the open mouth of the notch G when said arm
 125 B is in its locking position; but when the arm B is unlocked and rises the supplemental arm H swings forward and leaves the notch G free for the reception of the umbrella. It is of course evident that the same motion that de-
 130 presses the arm B to lock a hat and coat upon the hook A causes the supplemental arm H to close the notch G and fasten securely the umbrella placed therein. In actual practice

it is the best plan to first hang the garments and hat upon the hook A and then with the left hand insert the umbrella-stick within the notch G, while with the right hand the locking-arm B is lowered and the key removed. As a further improvement to this umbrella-holding attachment we attach to the casing or to the wall immediately below the same a canvas bag or tube R open at the top and adapted to receive any umbrella which may be locked into the coat and hat hook. The lower end of this bag R preferably terminates in a drip-cup R', made of metal and designed both for receiving any moisture from the umbrella and also to prevent the umbrella-stick from punching a hole through the bag. To aid in the ease of insertion into the bag, its mouth is usually encircled with a metallic ring R². Fig. 6 shows roughening of heads A' B' to prevent withdrawal of unusually thin articles.

What we claim as our invention, and desire to secure by Letters Patent, is as follows, to wit:

1. The combination with the garment-hook, of the pivoted locking-arm having a tooth rigidly connected therewith, a plurality of dogs or tumblers adapted to engage said tooth, said tumblers differing slightly in length and formed with differently-contoured key-engaging faces, and the key adapted to contact with all of said tumblers and release them

from engagement with said locking-arm tooth, substantially as and for the purpose set forth.

2. The combination of the garment-hook, the casing connected therewith, the pivoted locking-arm, the screw for fastening the lower part of said casing to a wall, the number-plate having the perforated neck and the screw for fastening the same to the wall, and means whereby said casing can be secured to said plate after the latter has been screwed to the wall, substantially as and for the purpose set forth.

3. The combination of the garment-hook and the casing, the pivoted locking-arm having the toothed segment less in width than the interior of the casing, the dogs or tumblers engaging said segment, the pin upon which said dogs are pivoted, the tension-spring anchored at one end to said pin beside said dogs, and the finger rigidly connected with said locking-arm and having the eye receiving the other end of said spring, substantially as and for the purpose set forth.

In testimony that we claim the foregoing invention we have hereunto set our hands and seals this 11th day of August, in the year 1897.

EVERETT W. JOHNSON. [L. S.]
EDWARD B. MARSH. [L. S.]

Witnesses:

F. E. CALLER,
A. B. UPHAM.