

No. 674,524.

Patented May 21, 1901.

N. SVENSON.
MOP HEAD.

(Application filed May 17, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

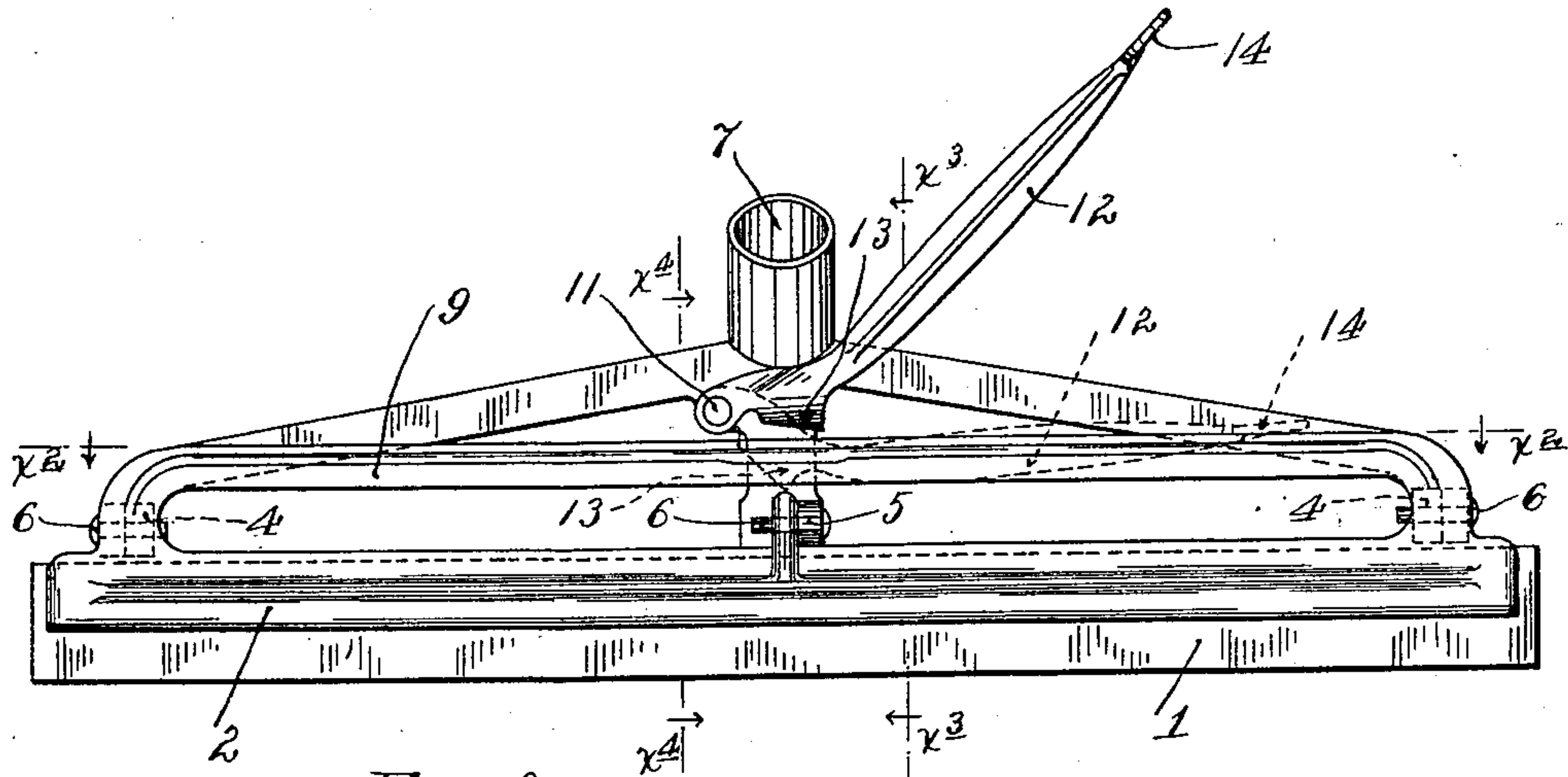


Fig. 2.

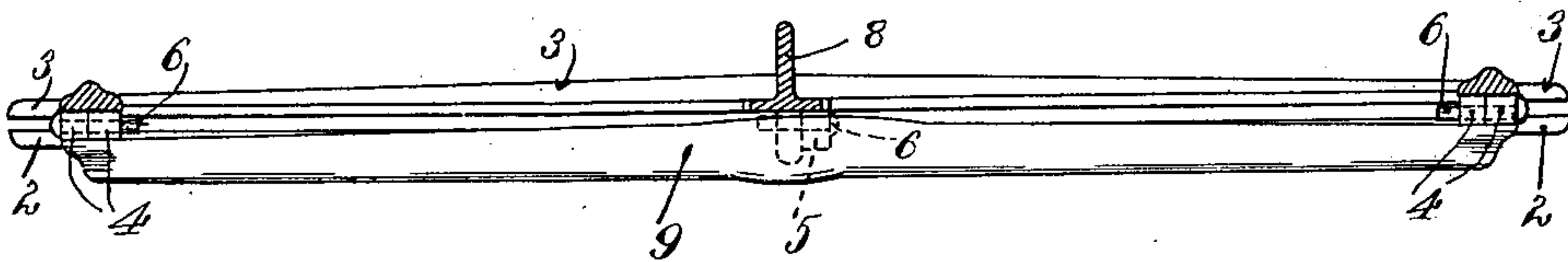


Fig. 3.

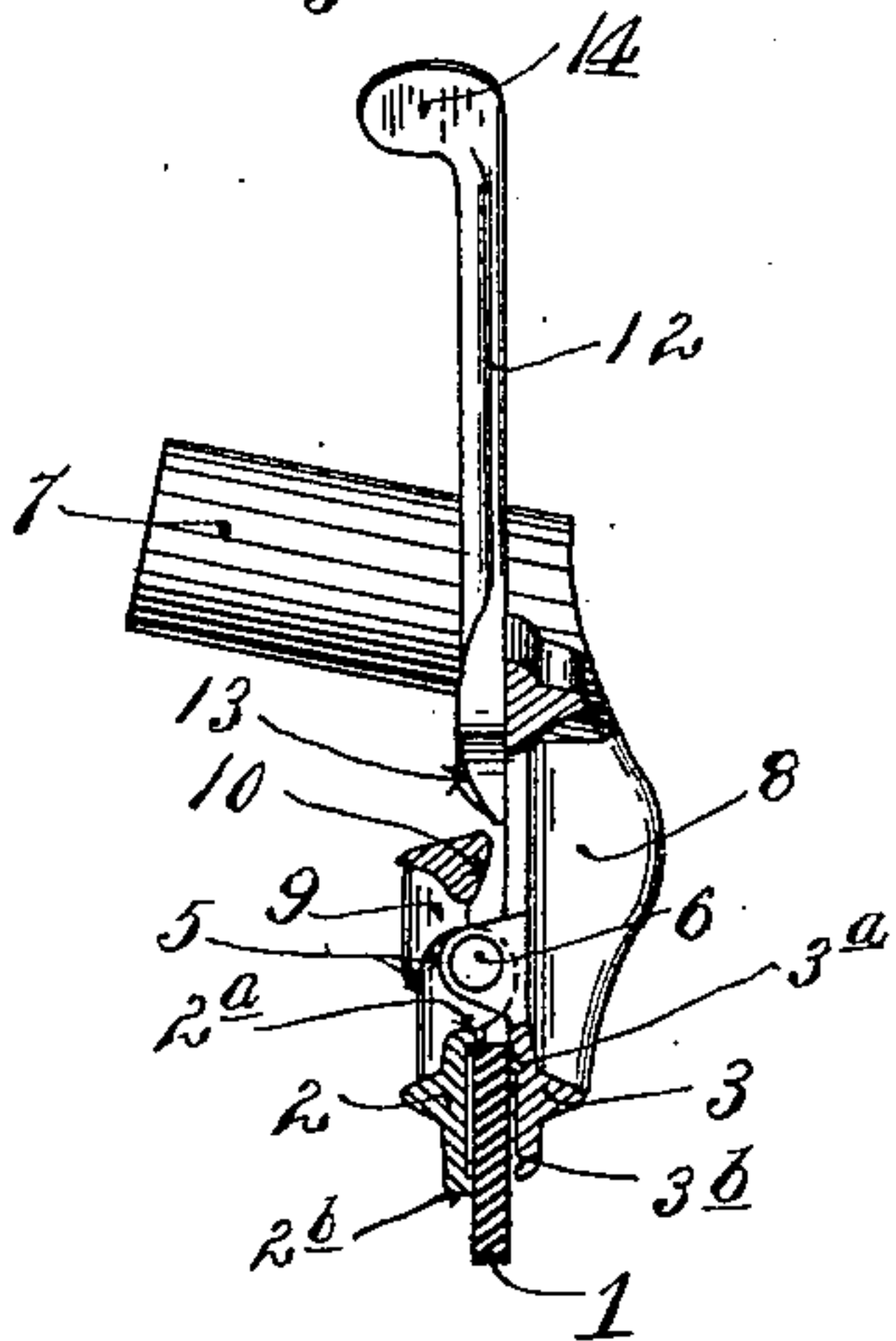
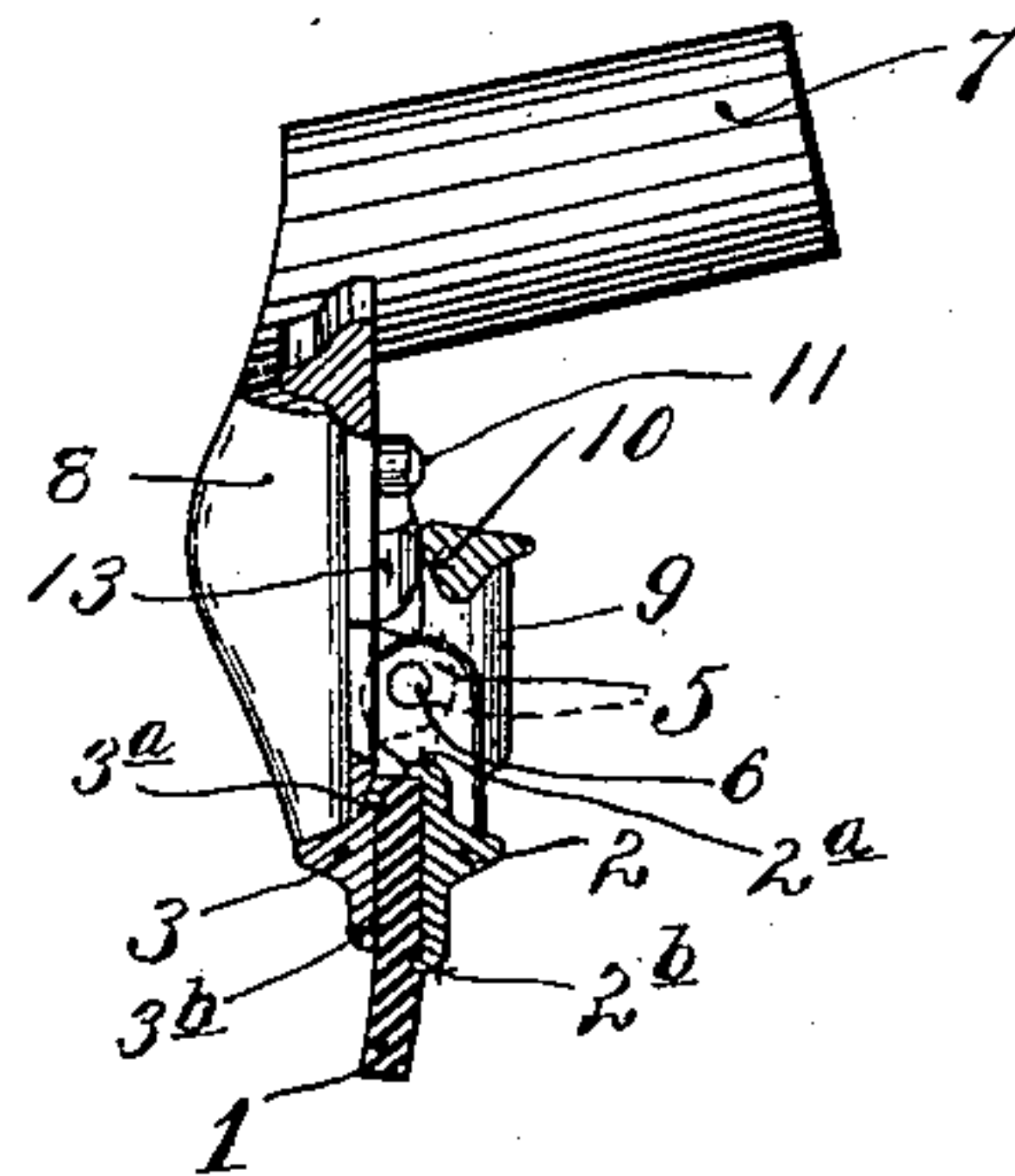


Fig. 4.



Witnesses.

Robert Otto

Harry Kilgus

Inventor.

Nils. Svenson.

By his Attorneys.

Williamson Merchant

No. 674,524.

Patented May 21, 1901.

N. SVENSON.
MOP HEAD.

(Application filed May 17, 1900.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 5.

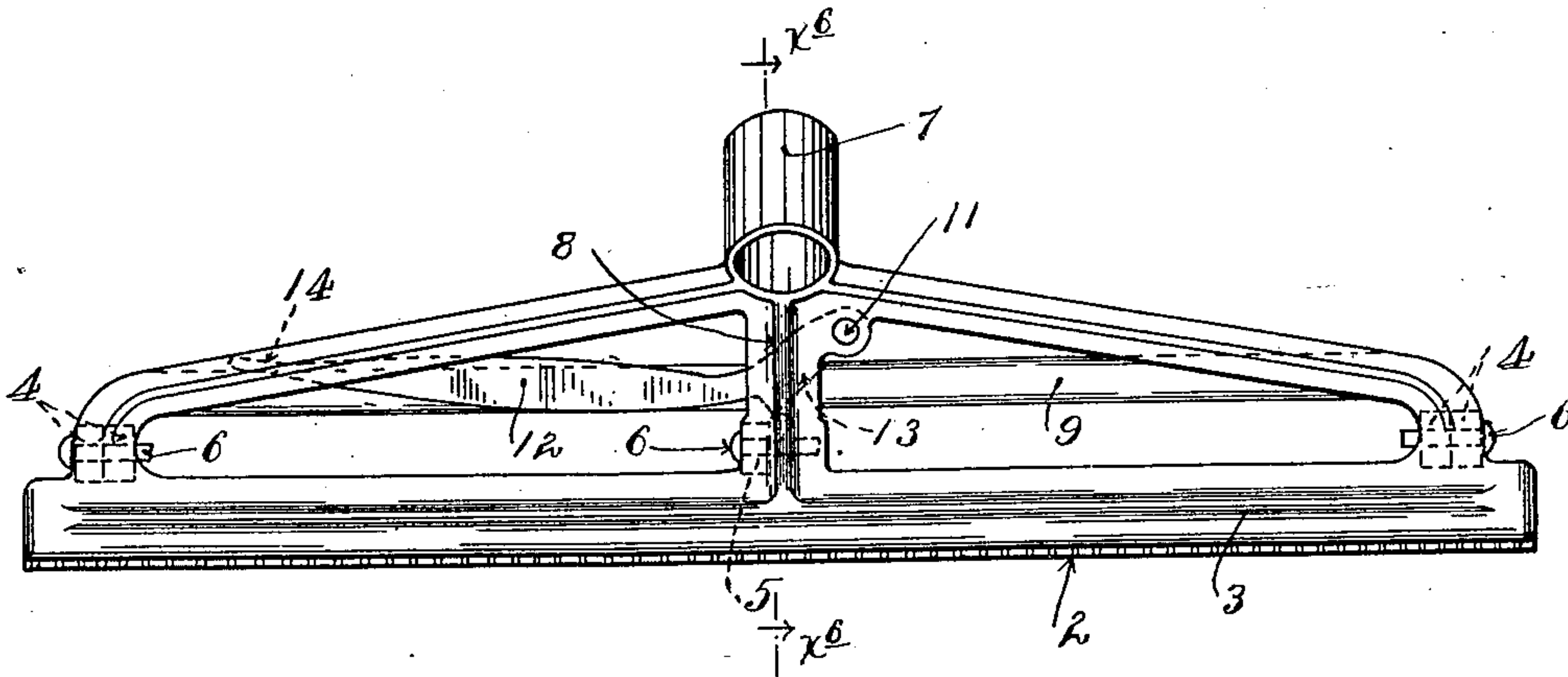
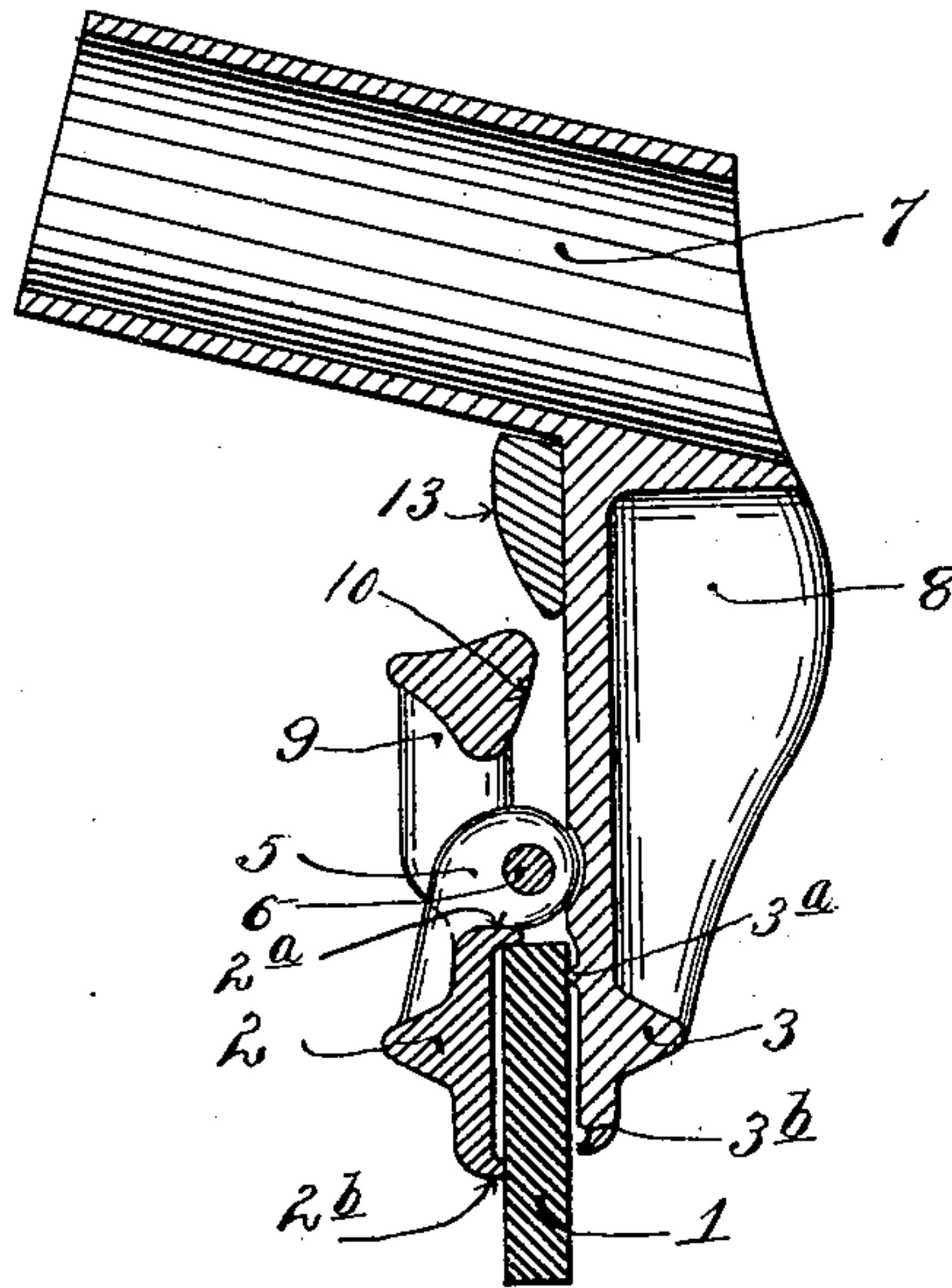


Fig. 6.



Witnesses
Robert Otto.
Harry Kilgore.

Inventor:
Nils Svenson.
By his Attorneys.
Williamson & Merchant.

UNITED STATES PATENT OFFICE.

NILS SVENSON, OF MINNEAPOLIS, MINNESOTA.

MOP-HEAD.

SPECIFICATION forming part of Letters Patent No. 674,524, dated May 21, 1901.

Application filed May 17, 1900. Serial No. 16,956. (No model.)

To all whom it may concern:

Be it known that I, NILS SVENSON, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Mop-Heads; and I do hereby 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.

My invention has for its object to provide an improved head or holder for scrapers, mops, &c.

The invention was especially designed for use as a window or floor scraper.

To the ends above indicated the invention consists of the novel devices and combinations of devices described, and defined in the claims.

The preferred form of the device is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a plan view of the complete scraper or mop head. Fig. 2 is a transverse vertical section on the line $x^2 x^2$ of Fig. 1. Fig. 3 is a vertical section on the line $x^3 x^3$ of Fig. 1. Fig. 4 is a vertical section on the line $x^4 x^4$ of Fig. 1. Fig. 5 is a bottom plan view of the mop or scraper head; and Fig. 6 is a detail, on an enlarged scale, in section on the line $x^6 x^6$ of Fig. 5.

1 indicates the flexible scraper or blade, which is preferably in the form of a heavy rubber strap with parallel edges.

The numeral 2 indicates the upper member, and the numeral 3 the under member, of a pair of blade-clamping jaws, which are pivotally connected or hinged together at their outer ends by cooperating pairs of hinge-lugs 4 and at their intermediate portions by a cooperating pair of hinge-lugs 5, which pairs of lugs are connected by rivets or pins 6.

The jaw 3 is provided with a skeleton-like extension, to which the handle-socket 7 is rigidly secured or cast integral. The handle or pole which is to be inserted into the socket 7 is not shown, but may be of any suitable construction, preferably a straight and round pole. The intermediate portion of the jaw 3 is directly connected to the socket 7 by a strong and ribbed span 8, the upper surface

of which, for a purpose presently to be noted, is flat and smooth. One of the pair of hinge-lugs 5 is integrally formed with the upper surface of the span 8, and as the span 8 is rigid or unyielding, the jaws 2 and 3 are hinged at their central portions, as well as at their ends, for positive biting action on the blade 1. In other words, with the arrangement of the hinges described the blade 1 will be clamped with equal, or substantially equal, pressure throughout its length.

The clamping-jaw 2 is provided with a transversely-extended spring presser-bar 9, which extends approximately parallel to the axis of the pivot pins or rivets 6. This spring presser-bar may be operated in various ways and may be variously constructed, but is for important reasons advisably constructed and operated as follows: At its central portion said bar 9 is formed with an under bearing-surface 10, which is preferably depressed below the body of the bar and inclined downward in the direction of the socket 7 for an important reason presently to be noted. To the upper surface of the span 8, by means of a stud or rivet 11, a cam-lever 12 is pivoted for movement in a plane approximately parallel to the spring-bar 9. This cam-lever 12 is provided with a beveled cam-lug 13, the extreme upper portion of which is rounded or turned downward toward both sides of the lever. By movement of the lever 12 from the position indicated by full lines into the position indicated by dotted lines in Fig. 1 and by full lines in Fig. 4 the cam-lug 13 is forced under the spring-bar 9 and into engagement with the bearing-surface 10 thereof, so that the said bar 9 is sprung upward or from the span 8, thereby tightly but yieldingly forcing the jaws 2 and 3 onto the scraper 1. By reference to Fig. 4 it will be noted that the crown or extreme upper portion of the cam-lug 13 is thrown beyond the lower portion or edge of the bearing-surface 10 of the spring-bar 9, so that the tension on the said bar has an increased tendency to hold the lever 12 in its closed position. It will be noted that the lever 12 is provided at its outer end with a finger-piece 14, which when the said lever is closed strikes the spring-bar 9 and limits the inward movement of the said lever.

The clamping-jaw 2 is formed with a lon-

longitudinally-extended inner flange 2^a, which serves as a stop to limit the inward movement of the scraper 1, and at its outer edge it is formed with a longitudinal flange 2^b, that is preferably serrated to give it an additional hold on the said scraper 1. Also the clamping-jaw 3 is preferably formed slightly outward of the stop-flange 2^a with a longitudinally-extended sharp-edged rib 3^a and near its outer edge with a longitudinal crease or channel 3^b. When the jaws are forced onto the pliable body of the scraper 1, the sharp-edged flange or rib 3^a would be forced into the pliable scraper 1 and a portion of the said pliable scraper would be forced into the channel 3^b. Thus the scraper-blade is very securely held when the jaws are forced onto the same. At the same time a simple outward movement of the lever 12 serves to release the scraper-blade 1 and to permit its ready removal as well as its quick and easy application. Preferably the serrated flange 2^b of the jaw 2 overlaps or extends outward of the outer edge of the jaw 3, so that it tends to bend or kink the scraper-blade 1, as shown in Fig. 4.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. A head or holder for a scraper or mop, comprising in combination a pair of pivotally-connected jaws, a spring presser-bar secured at its ends to one of said jaws, and an actuating device for said presser-bar having its base of resistance on the head or a projection from the other jaw, and engageable with the intermediate portion of said presser-bar, substantially as described.

2. A head or holder for a scraper or mop, comprising in combination a pair of pivoted jaws, a spring presser-bar connected at its ends to one of said jaws, and a cam-lever applied to the head or an extension from the other jaw, and engageable with the intermediate portion of said presser-bar to hold the jaws in their closed or clamping position, substantially as described.

3. The combination with a scraper or blade, of a pair of clamping-jaws hinged or pivotally connected together, one of said jaws having a transversely-extended spring presser-bar, and a cam-lever pivoted to the other jaw and working against said spring presser-bar in a plane parallel to said bar, and operating thereon with a wedge action to cause the said jaws to bite and hold said scraper-blade.

4. The combination with a scraper or blade, of the pair of clamping-jaws hinged or pivotally connected, one of said jaws having a transversely-extended spring presser-bar, with inclined bearing-surface 10, and the lever 12 pivoted at 11 and provided with a reversely-beveled cam-lug 13 operating with a camming action on the surface 10 of said presser-bar and adapted to be moved with its crown inward of the lower portion of said surface 10, substantially as described.

5. The combination with a scraper or blade, of a pair of clamping-jaws pivotally connected or hinged both at their ends and at their central portions, a spring presser-bar connected at its ends to one of said jaws, and a clamping device applied to the central portion of the other jaw and engageable with the intermediate portion of said presser-bar, substantially as described.

6. The combination with a scraper or blade, of the clamping-jaws 2, 3, provided with the pairs of lugs 4 and 5 at their end and intermediate portions, connected by pins or rivets 6, the spring presser-bar 9 connected at its ends to the jaw 2, said jaw 3 having the socket 7 and rigid flanged span 8, and the cam-lever 12 pivoted to said span 8 of the jaw 3 and having a cam-lug working with a wedging action between said span and said spring presser-bar 9, substantially as described.

7. The combination with a scraper or blade, of a pair of clamping-jaws pivotally connected at their end and central portions, a socket spaced apart from but connected with one of said jaws by a rigid central span and by a pair of diverging bars extending from said socket and joining the said jaw at its ends, and a device for clamping the jaws onto the scraper or blade, arranged to react against the said central span, substantially as described.

8. The combination with the pivoted or hinged jaws 2 and 3, one of said jaws having the sharp-edged ridge 3^a running lengthwise thereof opposite to the intermediate portion of the cooperating jaw, of a scraper-blade and means for clamping the said jaws onto said blade, substantially as described.

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

NILS SVENSON.

Witnesses:

M. M. McGRORY,
 F. D. MERCHANT.