

946,286.

J. H. SWEETLAND.
BUSH HAMMER.
APPLICATION FILED APR. 28, 1908.

Patented Jan. 11, 1910.

Fig. 1.

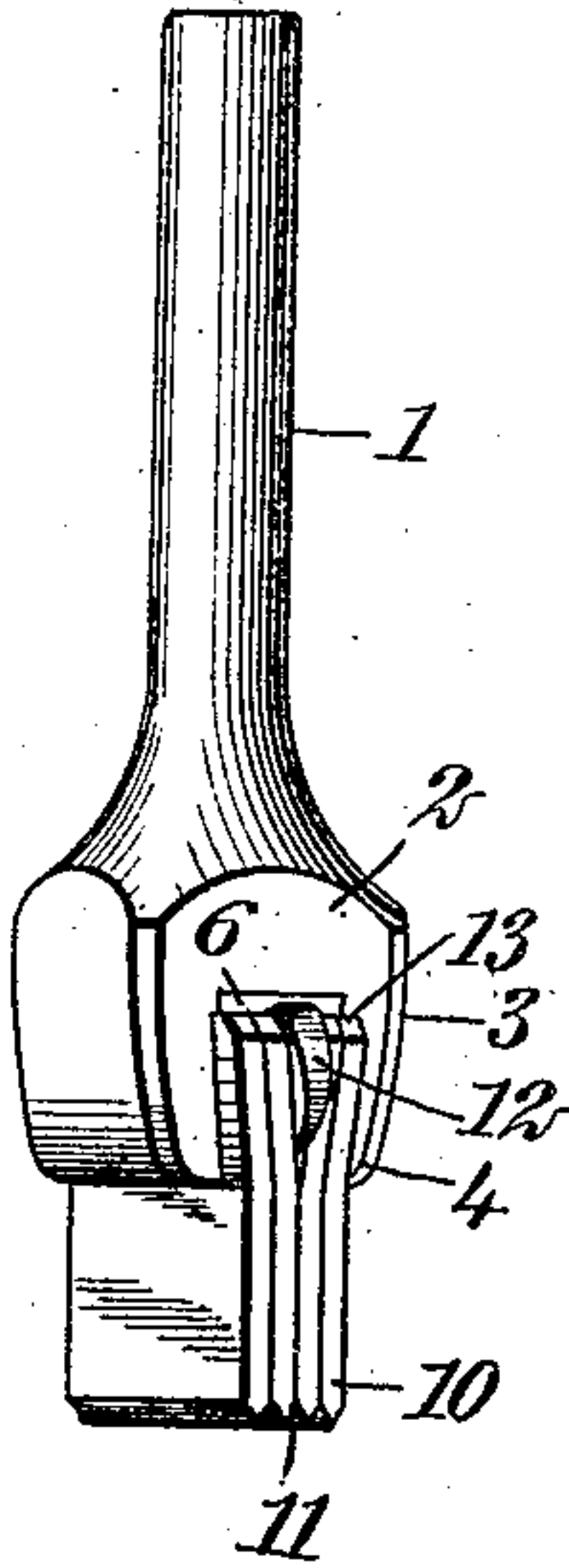
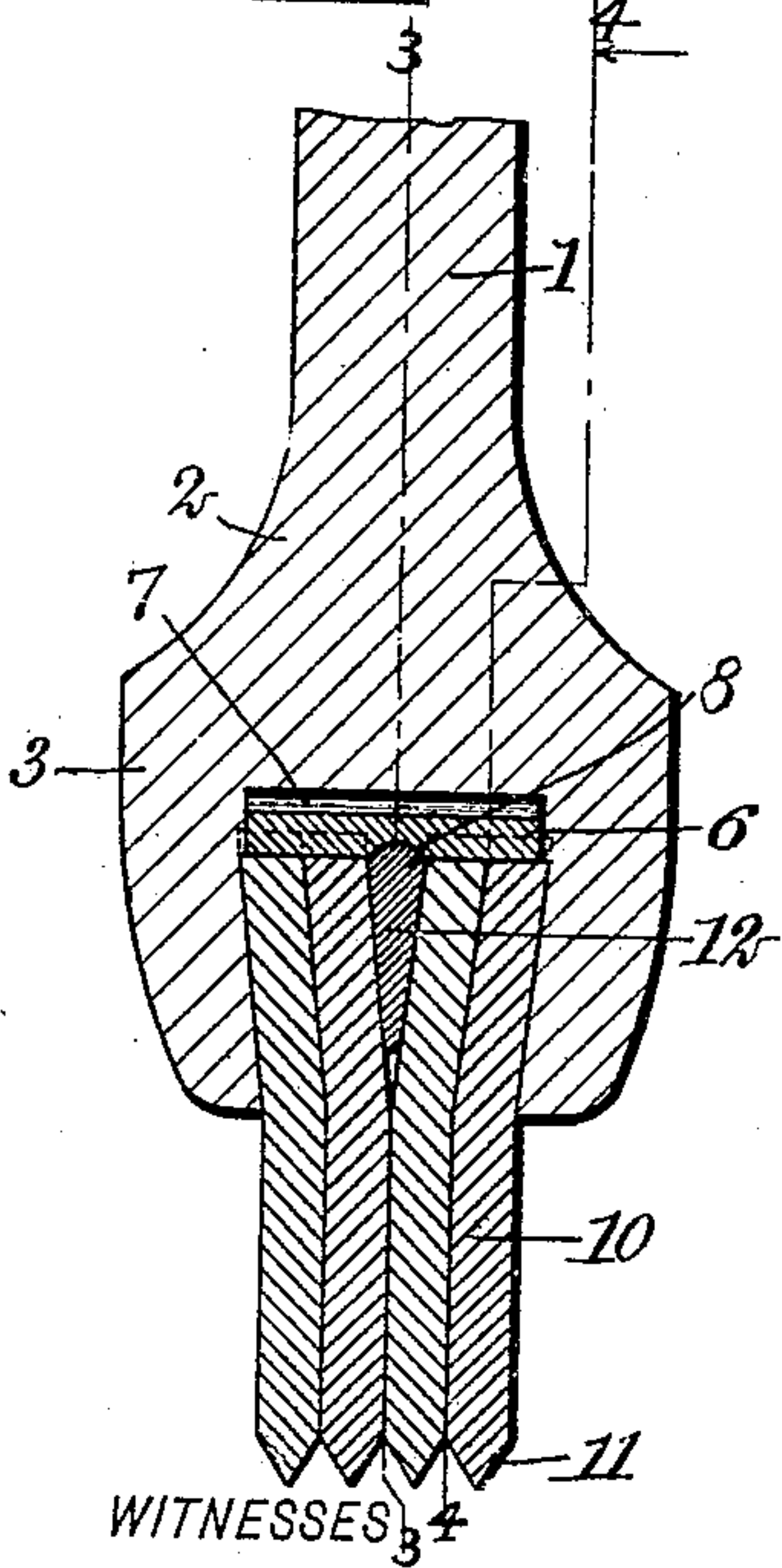


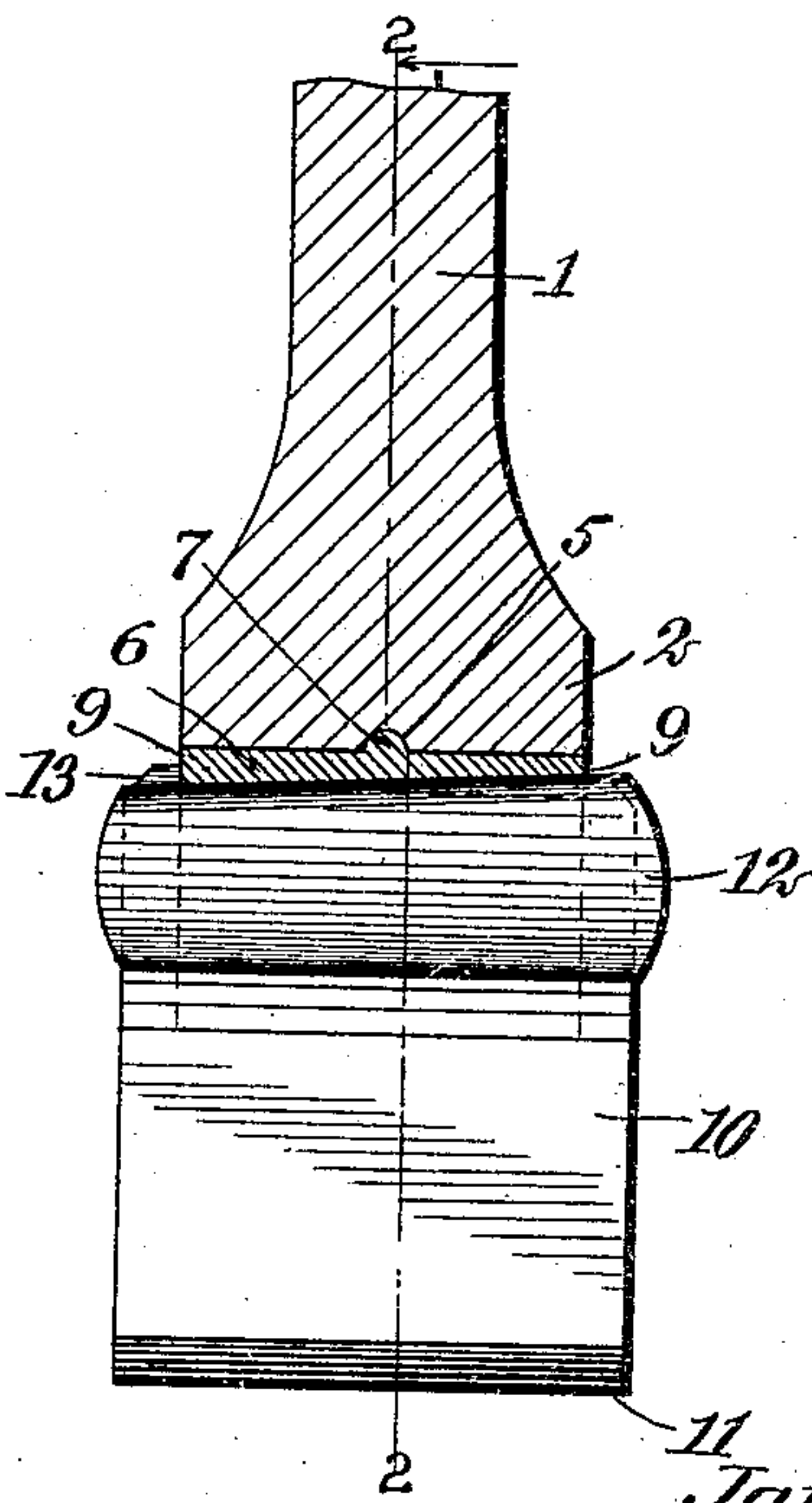
Fig. 2.



WITNESSES

L. Almqvist
E. B. Marshall

Fig. 3.



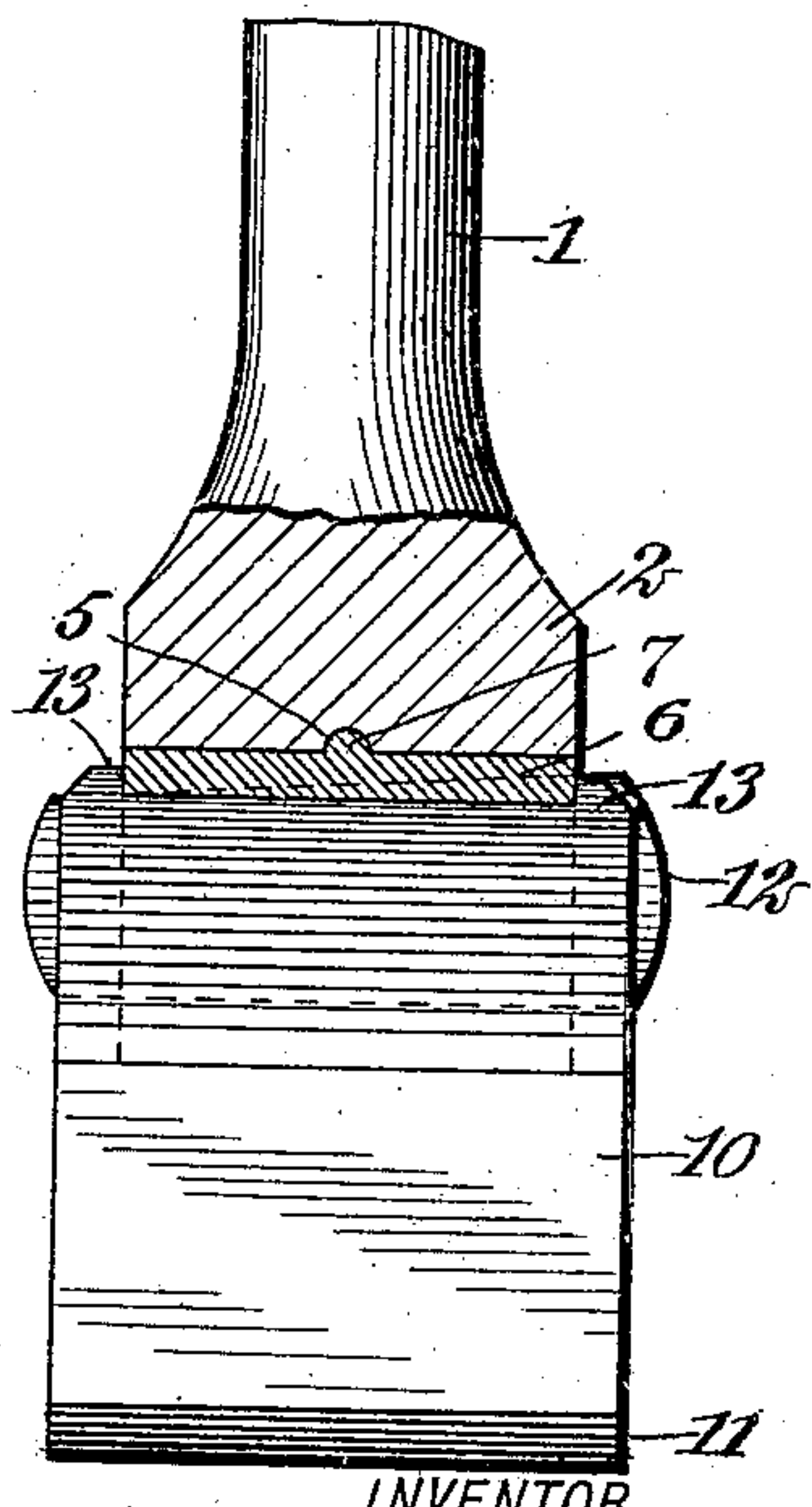
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James H. Sweetland

BY *Mum Co.*

ATTORNEYS

Fig. 4.



INVENTOR

UNITED STATES PATENT OFFICE.

JAMES H. SWEETLAND, OF HALL QUARRY, MAINE, ASSIGNOR OF ONE-HALF TO
WALTER L. SWEETLAND, OF STONINGTON, MAINE.

BUSH-HAMMER.

946,286.

Specification of Letters Patent.

Patented Jan. 11, 1910.

Application filed April 28, 1908. Serial No. 429,633.

To all whom it may concern:

Be it known that I, JAMES H. SWEETLAND, a citizen of the United States, and a resident of Hall Quarry, in the county of Hancock and State of Maine, have invented a new and Improved Bush-Hammer, of which the following is a full, clear, and exact description.

My invention relates to bush hammers, and has for its object to provide means to more securely hold the teeth or blades in the head of the hammer, so that any lateral movement of the teeth or blades may be prevented, while at the same time it is possible to replace the teeth or cutters with little trouble.

It is also my object to provide a bush hammer which can be manufactured at little cost, and one which is durable and which may be used for a long period in active work.

In this specification I will describe a preferred form of my invention, but I do not limit myself thereto, as I consider myself entitled to all forms and embodiments of the invention which may be held to fall within the scope of the appended claims.

In the drawings, the same reference characters refer to similar parts in all the figures, in which—

Figure 1 is a perspective view showing my bush hammer with the teeth or cutters in operative position; Fig. 2 is a sectional view on the line 2—2 of Fig. 3; Fig. 3 is a sectional view on the line 3—3 of Fig. 2; and Fig. 4 is a sectional view on the line 4—4 of Fig. 2.

By referring to the drawings, it will be seen that my bush hammer has the usual shank 1 and head 2, and that this head 2 has depending jaws 3 which converge toward the lower terminals 4. Transversely between the jaws 3 there is a groove 5 in the head 2. Between the jaws and in the head is inserted a gib 6 which has a rib 7 which is adapted to fit in the groove 5 of the head to prevent any movement of the gib relatively to the head. This gib 6 has a groove 8 which is parallel with the depending jaws 3 of the head when the gib is in place with the rib 7 engaging the groove 5 in the head. This groove 8 is greater in depth at one end than at the other and tapers off, forming an easy

angle relatively to faces 9. Between the depending jaws 3 of the head 2 are disposed teeth or blades 10 which have their lower terminals 11 provided with cutters which are adapted to do the particular class of work which the operator has in hand. The bodies of the teeth or blades 10 are angular in form so that they will easily fit the converging jaws 3, leaving an opening between two of the teeth or blades 10 in which a key 12 may be introduced. By disposing the teeth or blades 10 so that this opening will be directly under the groove 8 in the gib 6 it will be found that the key 12 will fit the groove, and as it is driven in it will hold the teeth or blades 10 in place. But in order to prevent any possible lateral movement of the teeth or blades 10, I provide them with projecting corners or flanges 13, which are adapted to fit close against either face of the head 2, and by this means, in connection with the key 12, I prevent any possible movement of the teeth or blades 10 when the bush hammer is being used. As the key 12 is of the usual form with one end smaller than the other, the tapering groove 8 in which the key 12 fits assures an even pressure of the key on the teeth or blades 10.

In using my invention, the gib 6 is introduced between the depending jaws 3 of the head 2 with its rib 7 disposed in the groove 5 of the head. The teeth or blades 10 are then introduced between the jaws 3, with their angular bodies so disposed that an opening exists between two of the teeth or blades just below the groove 8 in the gib 6. The corners or flanges 13 of the teeth or blades 10 are disposed against the faces of the head 2, and the key 12 is then introduced between the teeth or blades 10 and below the groove 8 in the gib 6, and when the key 12 is driven home it will be found that the teeth or blades 10 are held securely in place without danger of any lateral or other movement relatively to the head 2 and the shank 1. The gib 6 forms a part of the head and may be secured thereto.

It will be understood that while I have described a bush hammer of the character which is usually employed in machine work, other bush hammers may be constructed in the same manner, with the handle disposed at an angle to the head in order that the

hammer may be used as is familiar to those acquainted with the art.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a bush hammer a head having converging jaws, a plurality of blades which are angular in form and which are disposed between the jaws with their upper portions disposed outwardly at either side of a point between the jaws, a key which is disposed between two of the blades, and means for preventing any lateral movement of the key relatively to the head.

2. A bush hammer having jaws and provided in the bottom of the groove between the jaws with a smaller groove, the size of the cross section of which gradually increases from one end to the other, a plurality of blades disposed between the jaws and a key, which has one of its edges disposed in the groove and which has its body disposed between two of the blades, the key increasing in size in cross section substantially directly as the size of the cross section of the smaller groove.

3. A bush hammer having converging jaws and provided in the bottom of the groove between the jaws with a smaller groove, the depth of which gradually increases from one end to the other, a plurality of blades disposed between the jaws, and a key which has one of its edges disposed between two of the blades, the key decreasing in height substantially directly as the depth of the groove.

4. A bush hammer having converging jaws and provided in the bottom of the groove between the jaws with a smaller groove, the depth of which gradually increases from one end to the other, a plurality of blades disposed between the jaws, the blades being angular in form, which are outwardly disposed from the groove, and a key which has an edge disposed in the groove, and which has its body disposed between two of the blades, the key varying in height substantially directly as the depth of the groove.

5. A bush hammer having converging jaws and provided in the bottom of the groove between the jaws with a smaller groove, the depth of which gradually increases from one end to the other, a plurality of blades disposed between the jaws, the blades being angular in form, and which are outwardly disposed from the groove, a key which has an edge disposed in the groove, and which has its body disposed between two of the blades, the key increasing in size along its length inversely as the size

of the groove, and means for preventing the lateral movement of the blades.

6. In a bush hammer, a head having jaws, a gib and a plurality of blades which are adapted to be disposed between the jaws, there being a groove in the gib, and a key which is adapted for sliding in the groove and for holding the blades in place.

7. In a bush hammer, a head having converging jaws, a gib and a plurality of blades which are adapted to be disposed between the jaws, the bodies of the blades being angular in form, there being a groove in the gib, and a key which is adapted for sliding in the groove and for holding the blades in place.

8. In a bush hammer, a head having jaws, a gib and a plurality of blades which are adapted to be disposed between the jaws, the blades having means for co-acting with the head for preventing their lateral movement relatively thereto, there being a groove in the gib, and a key which is adapted for sliding in the groove for holding the blades in place.

9. In a bush hammer, a head having converging jaws, a gib and a plurality of blades which are adapted to be disposed between the jaws, the blades being angular in form and having means for coacting with the head for preventing their lateral movement relatively thereto, there being a groove in the gib, and a key which is adapted for sliding in the groove for holding the blades in place.

10. In a bush hammer, a head having converging jaws, a gib and a plurality of blades adapted to be disposed between the jaws, the gib and the blades having means which coact with the head for preventing their lateral movement relatively thereto, the bodies of the blades being angular in form, there being a groove in the gib, and a key which is adapted for sliding in the groove and to spread the blades for holding them in place.

11. A bush hammer having jaws and provided in the bottom of the groove between the jaws with a smaller groove, the depth of which gradually increases from one end to the other, a plurality of blades disposed between the jaws, and a key which has an edge disposed in the groove and which has its body disposed between two of the blades, the size of the key increasing along its length inversely as the size of the groove.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES H. SWEETLAND.

Witnesses:

S. B. THURLOW,

N. S. BUCKMINSTER.