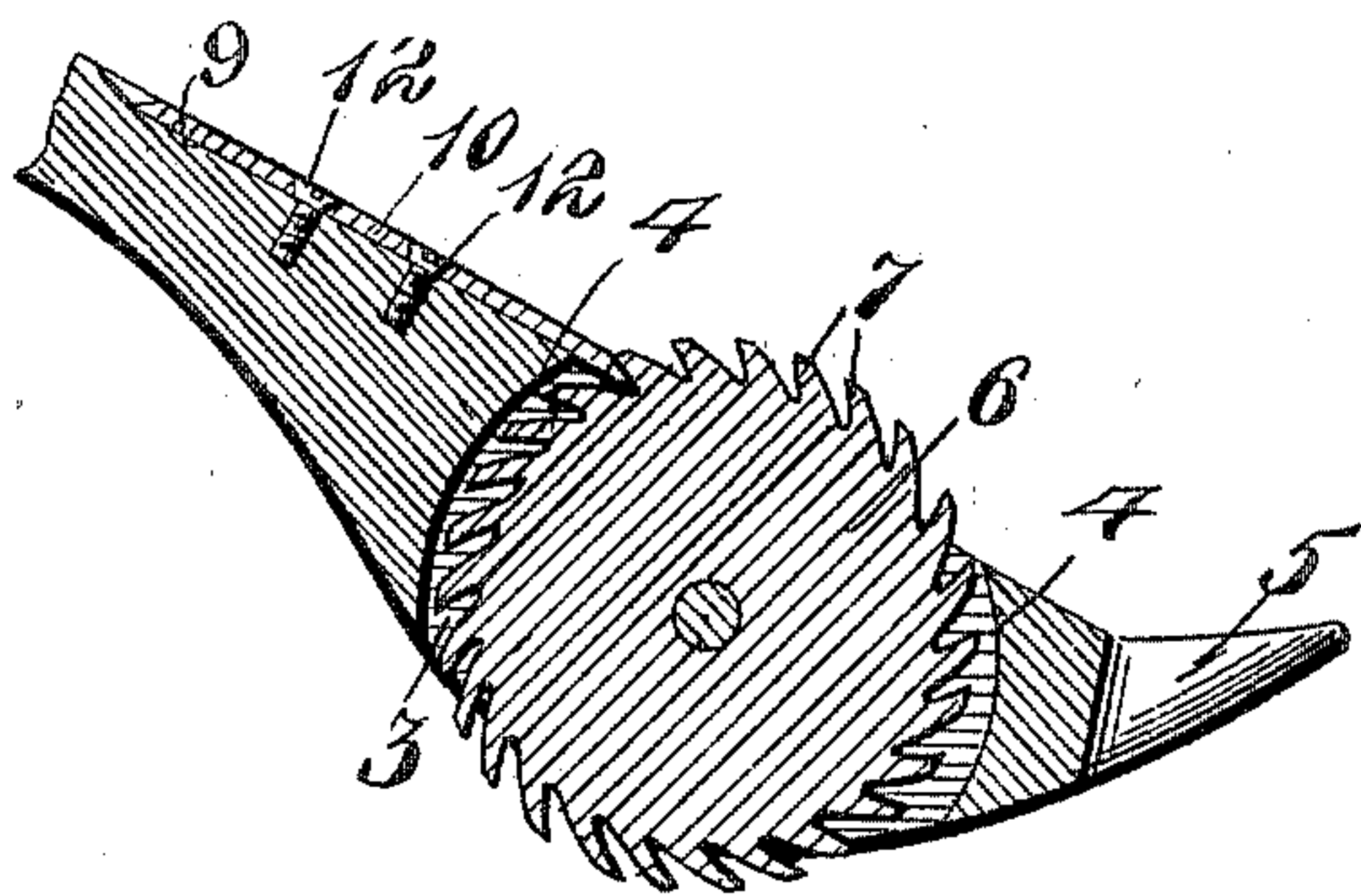


No. 821,404.

PATENTED MAY 22, 1906.

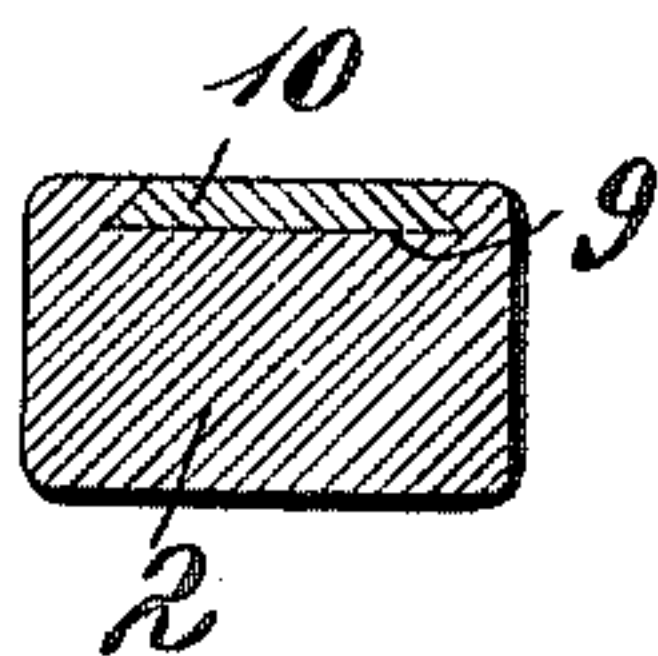
O. B. CRAFT.  
SPIKE PULLER.

APPLICATION FILED JUNE 6, 1905.

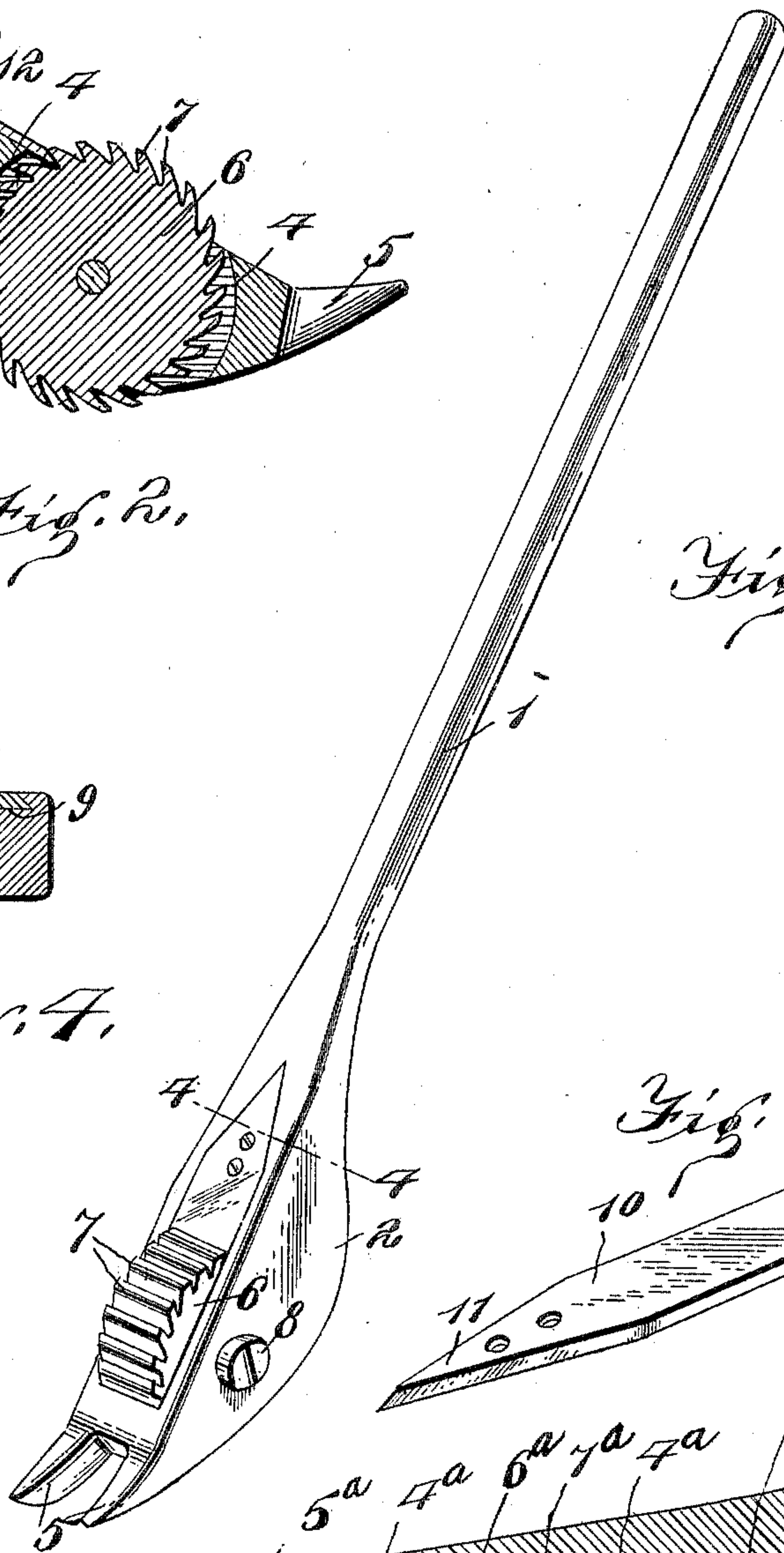


*Fig. 2.*

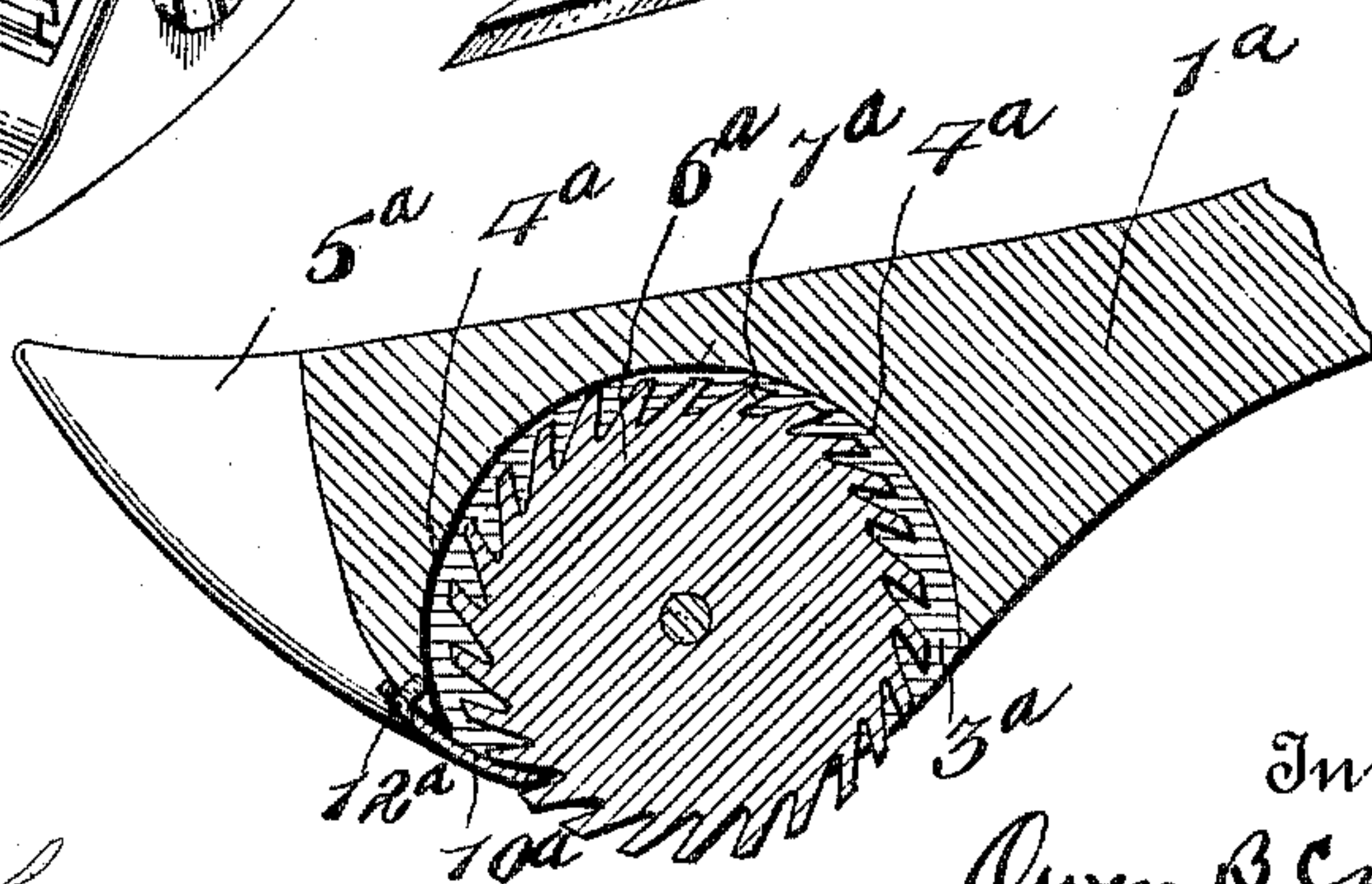
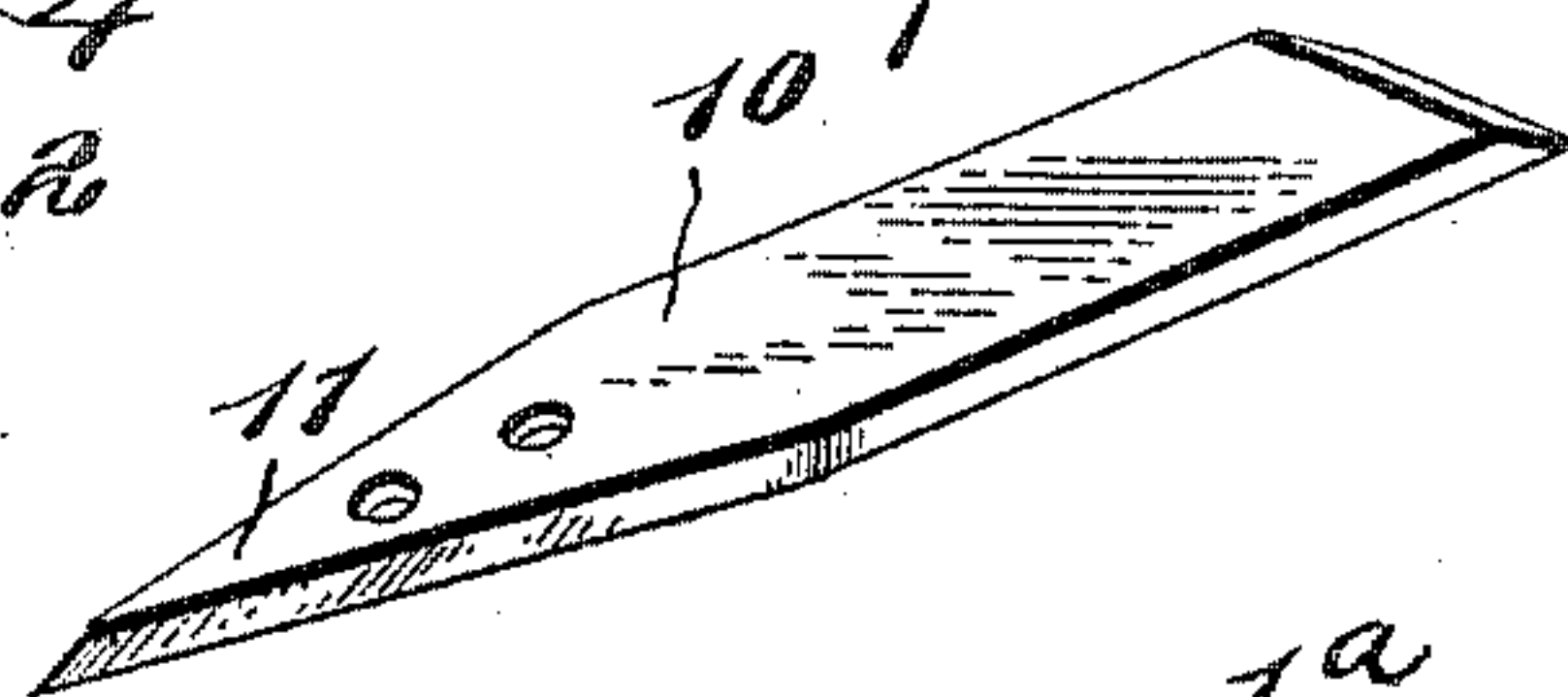
*Fig. 1.*



*Fig. 4.*



*Fig. 3.*



*Fig. 5.*

Witnesses  
*Forrest Smith,*  
*L. E. Barkley.*

Inventor  
*Owen B. Craft*  
*Frank S. Appelman*  
Attorney



# UNITED STATES PATENT OFFICE.

OWEN BRADFORD CRAFT, OF HAWTHORN, PENNSYLVANIA, ASSIGNOR OF  
ONE-HALF TO J. A. F. HOY, OF CLARION, PENNSYLVANIA.

## SPIKE-PULLER.

No. 821,404.

Specification of Letters Patent.

Patented May 22, 1906.

Application filed June 6, 1905. Serial No. 263,965.

*To all whom it may concern:*

Be it known that I, OWEN BRADFORD CRAFT, a citizen of the United States of America, residing at Hawthorn, in the county of Clarion and State of Pennsylvania, have invented certain new and useful Improvements in Spike-Pullers, of which the following is a specification.

This invention relates to new and useful improvements in nail-extractors, and is intended more particularly to be used in withdrawing spikes.

It is the object of this invention to provide a novel device of this kind designed primarily for use in pulling railroad-spikes, wherein the action of the wheel forces the claws of the puller in such position to exert a pull on the spike vertically or straight, thus preventing bending of the spike while being withdrawn.

Furthermore, an object of this invention is to provide novel means whereby the wheel is held against rotation in one direction in order to facilitate the operation of the device.

Finally, an object of this invention is to provide a device of the character described possessing advantages in points of efficiency, simplicity, and durability, proving at the same time comparatively inexpensive to manufacture.

With the foregoing and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, wherein like characters denote corresponding parts in the several views, in which—

Figure 1 is a view in perspective of the invention. Fig. 2 is a fragmentary sectional view. Fig. 3 is a perspective view of the pawl used in this invention, illustrating the beveled edges thereof, said pawl being shown detached. Fig. 4 is a sectional view taken on the line 4 4 of Fig. 1, and Fig. 5 is a sectional view of a modified construction.

In the drawings, 1 indicates a suitable handle terminating in a head 2, having extending therethrough an opening 3, the end walls of which being rounded, as at 4 4. On the end of the head are formed the claws 5 for the purpose readily understood. Within the opening 3 of the head is a ratchet-wheel

6, having its teeth 7 extending backward on an incline. The wheel 6 is mounted on a pin 8, journaled or held in the side walls of the head. On the upper surface of the head and communicating with the opening 3 is a pocket or recess 9, which has its inner end tapered to a point. The walls of the tapered portion are beveled inwardly. Fitting with the pocket 9 and corresponding to the shape thereof is a pawl 10, which has the edges of its tapered portion 11 beveled outwardly to fit within the beveled portion of the pocket, and thereby form a dovetailed connection. The pawl extends partly within the opening 3 and engages the teeth of the wheel 6 and holds the said wheel against movement in one direction. To hold the pawl within the pocket, a plurality of screws 12 or the like pass through the pawl and engage the head 2. By the fact of having a dovetail connection between the pawl and the pocket the strain on the pawl is distributed to the head and almost entirely removed from the securing means 12. This is a great advantage in practice, as the life and utility of the device are greatly prolonged.

As the operation of the device is thought to be clearly apparent from the foregoing, a detail thereof is thought unnecessary.

Although this invention has been described as used as a spike-puller, it is to be understood that it can be used with equal success as a nail-extractor, tack-extractor, or for other similar uses.

In the modification shown in Fig. 5 I provide a head 1<sup>a</sup> with claws 5<sup>a</sup>. The head is provided with a recess 3<sup>a</sup> in its under surface, in which a wheel 6<sup>a</sup> is rotatable, said wheel having a series of teeth 7<sup>a</sup>. The wheel 6<sup>a</sup> is held against retrograde movement through the medium of the pawl 10<sup>a</sup>, which is secured in place by means of the screw 12<sup>a</sup>. The wall 4<sup>a</sup> of the cavity or recess extends only partially through the head, so that said head has its upper surface undisturbed and may be utilized as a hammer or driver.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a device of the character described, a head having a recess, a handle for the head, a wheel mounted within the recess, said wheel having teeth projecting from its periphery, all of said teeth being inclined in one direc-



tion, claws carried by the free end of the head, a pocket formed in the head and communicating with the recess, said pocket having its inner end approximately V-shaped and having the walls of its V-shaped portion beveled inwardly, a pawl fitting within the pocket and extending within the recess and engaging the teeth of the wheel, said pawl having an end approximately V-shaped to fit within the V-shaped portion of the pocket, the

edges of said V-shaped pawl being beveled outwardly to engage the bevel portion of the recess.

In testimony whereof I affix my signature, in the presence of two witnesses, this 2d day 15 of June, 1905.

OWEN BRADFORD CRAFT.

Witnesses:

DANIEL M. GEIST,  
J. M. MOYER.