

No. 728,856.

PATENTED MAY 26, 1903.

J. M. BRYANT.
HOOF TRIMMING NIPPERS.
APPLICATION FILED MAY 19, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

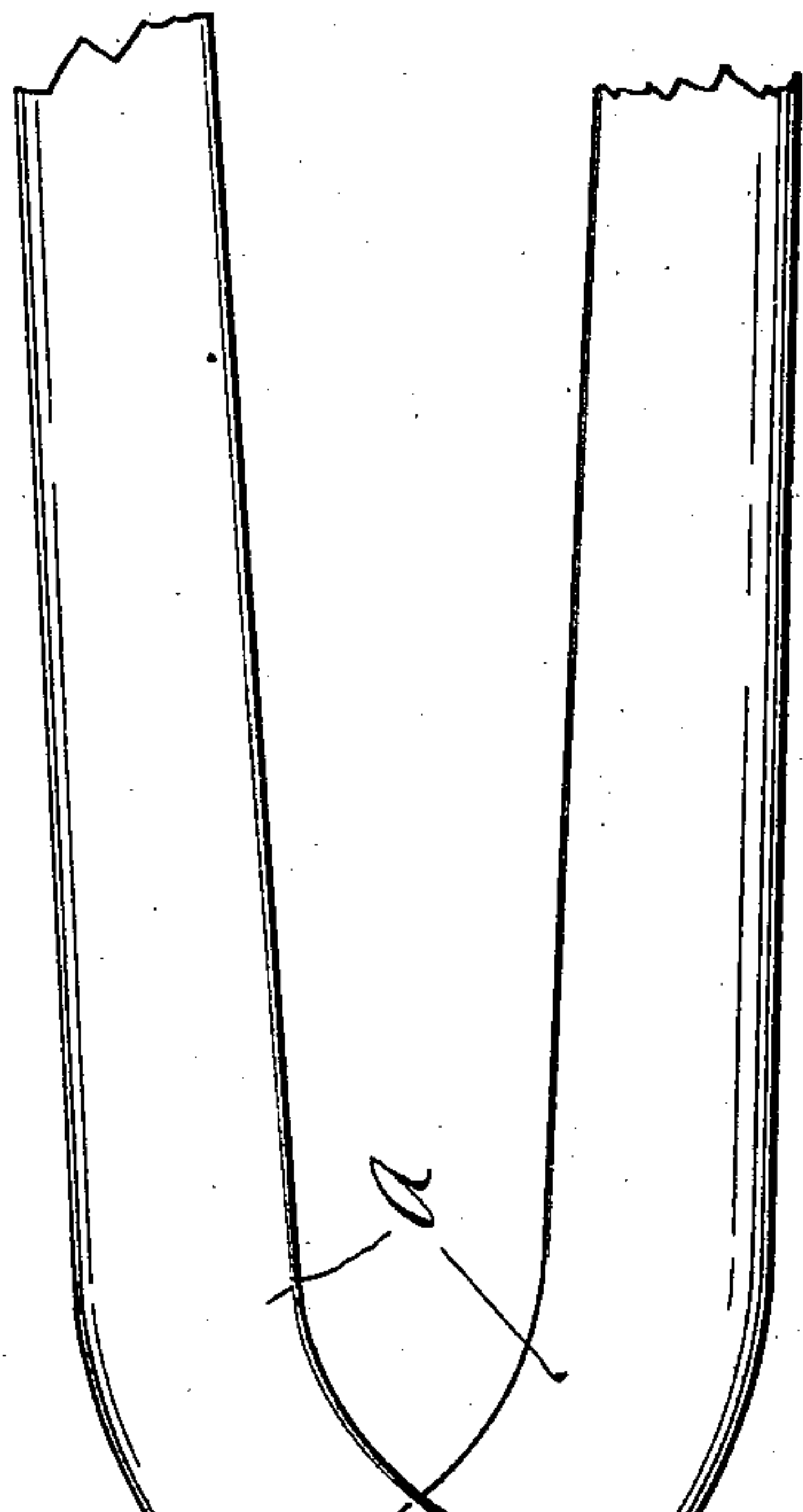
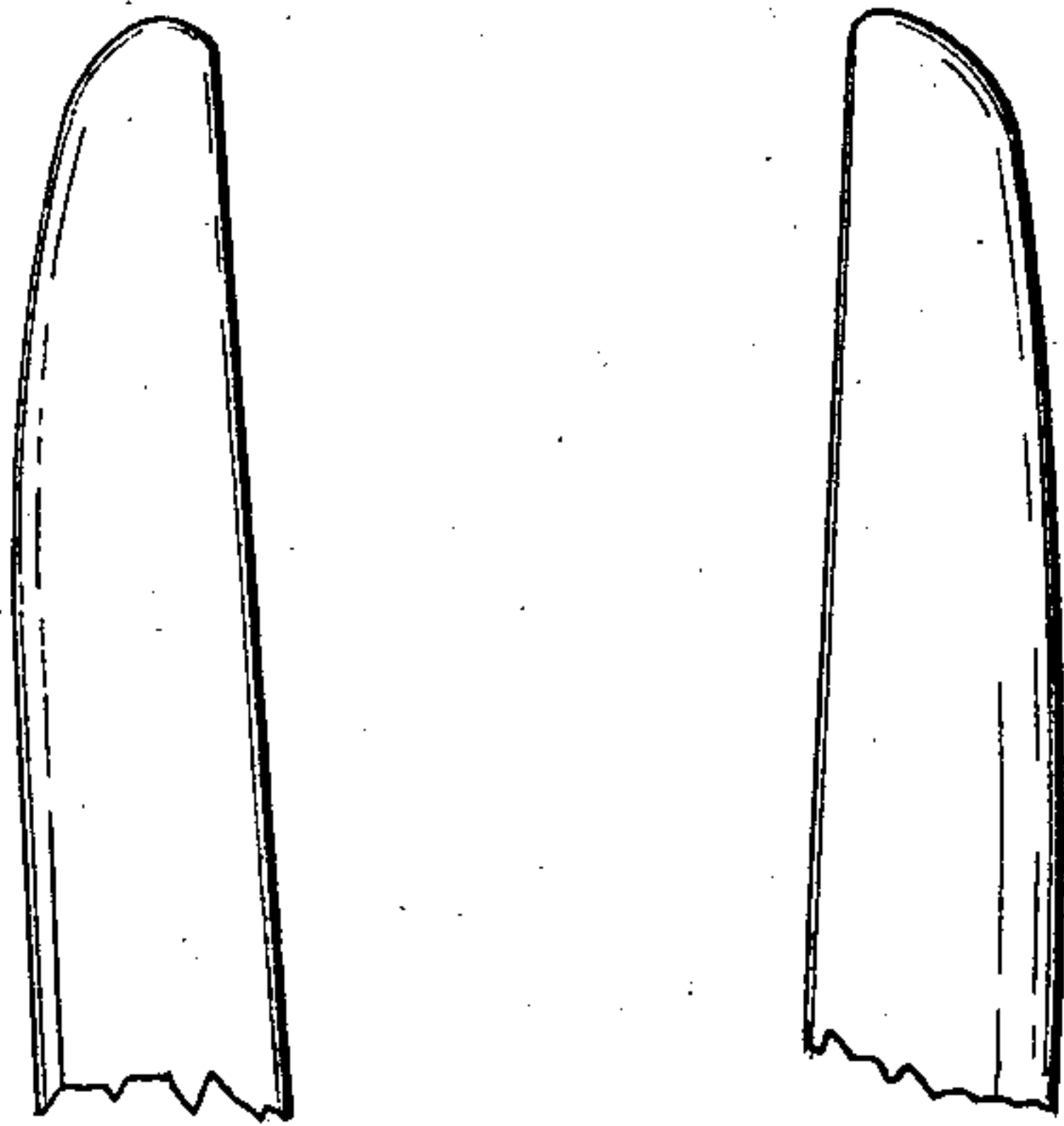


Fig. 2.

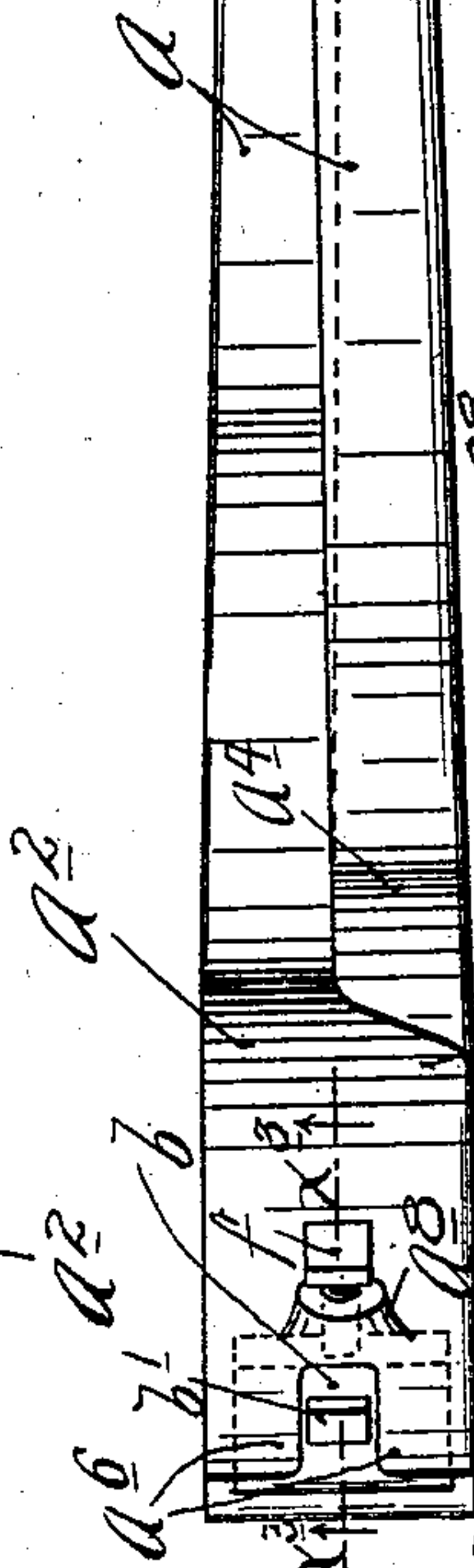
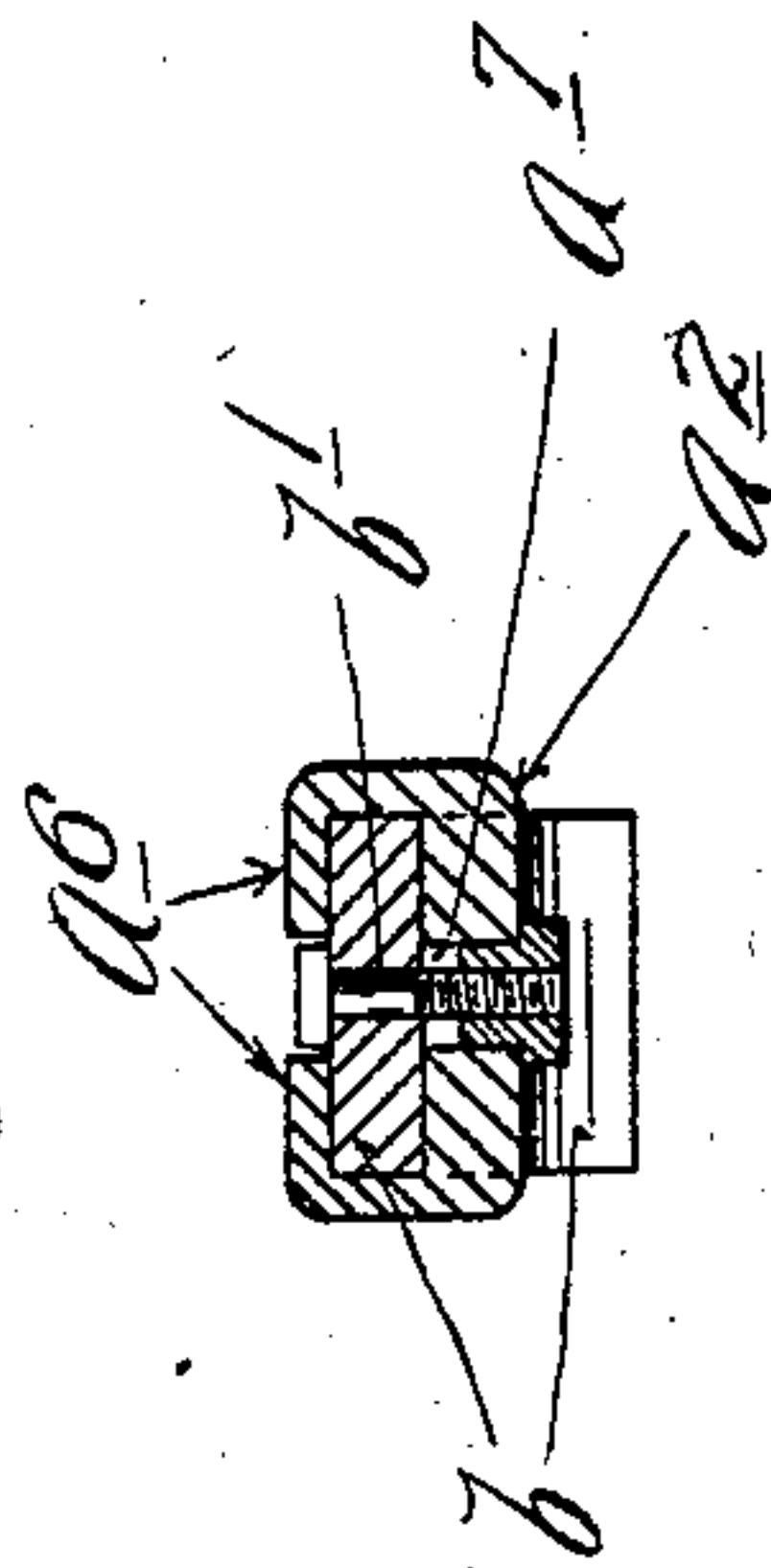
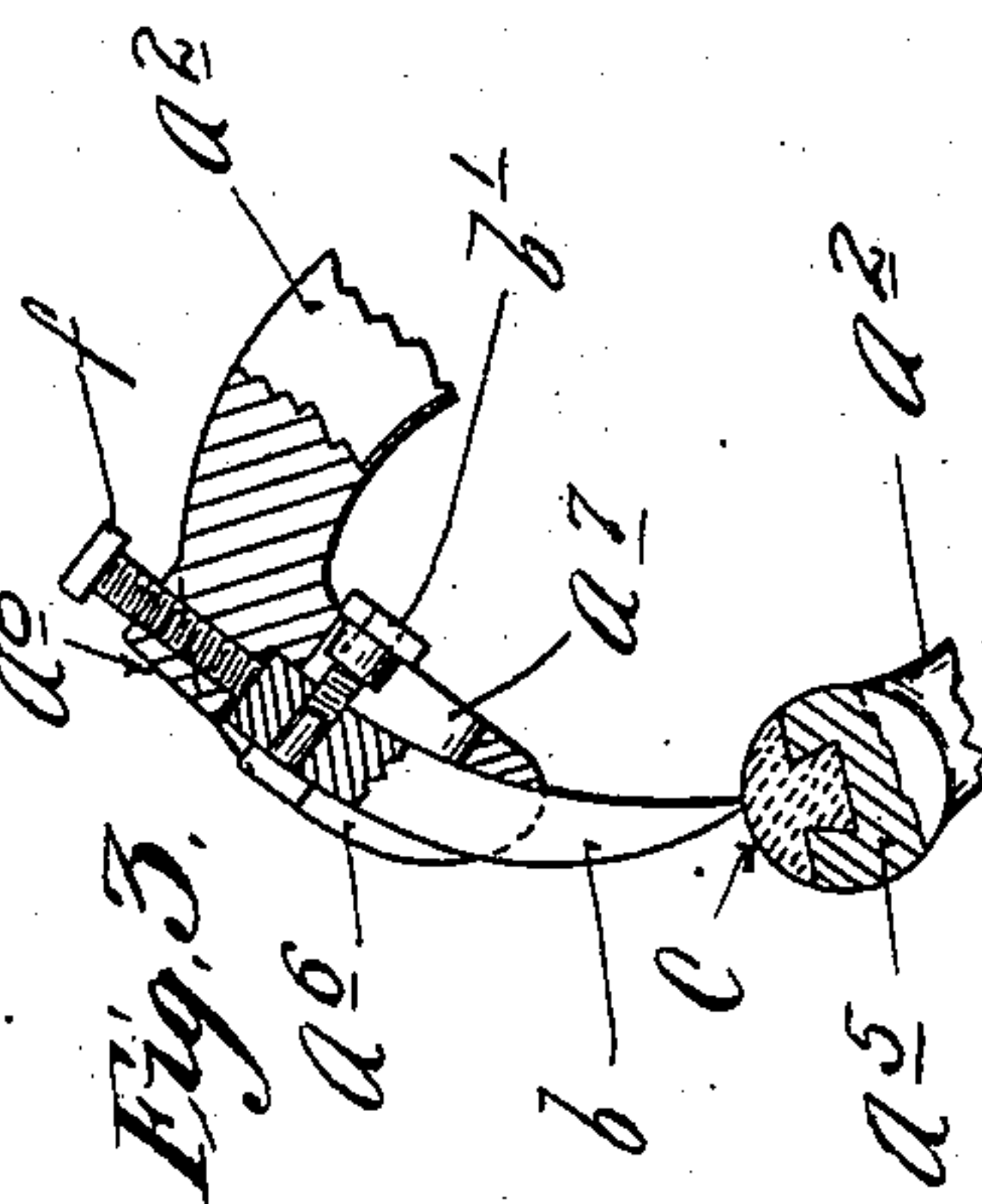


Fig. 3.



Witnesses.
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William M. Ward.

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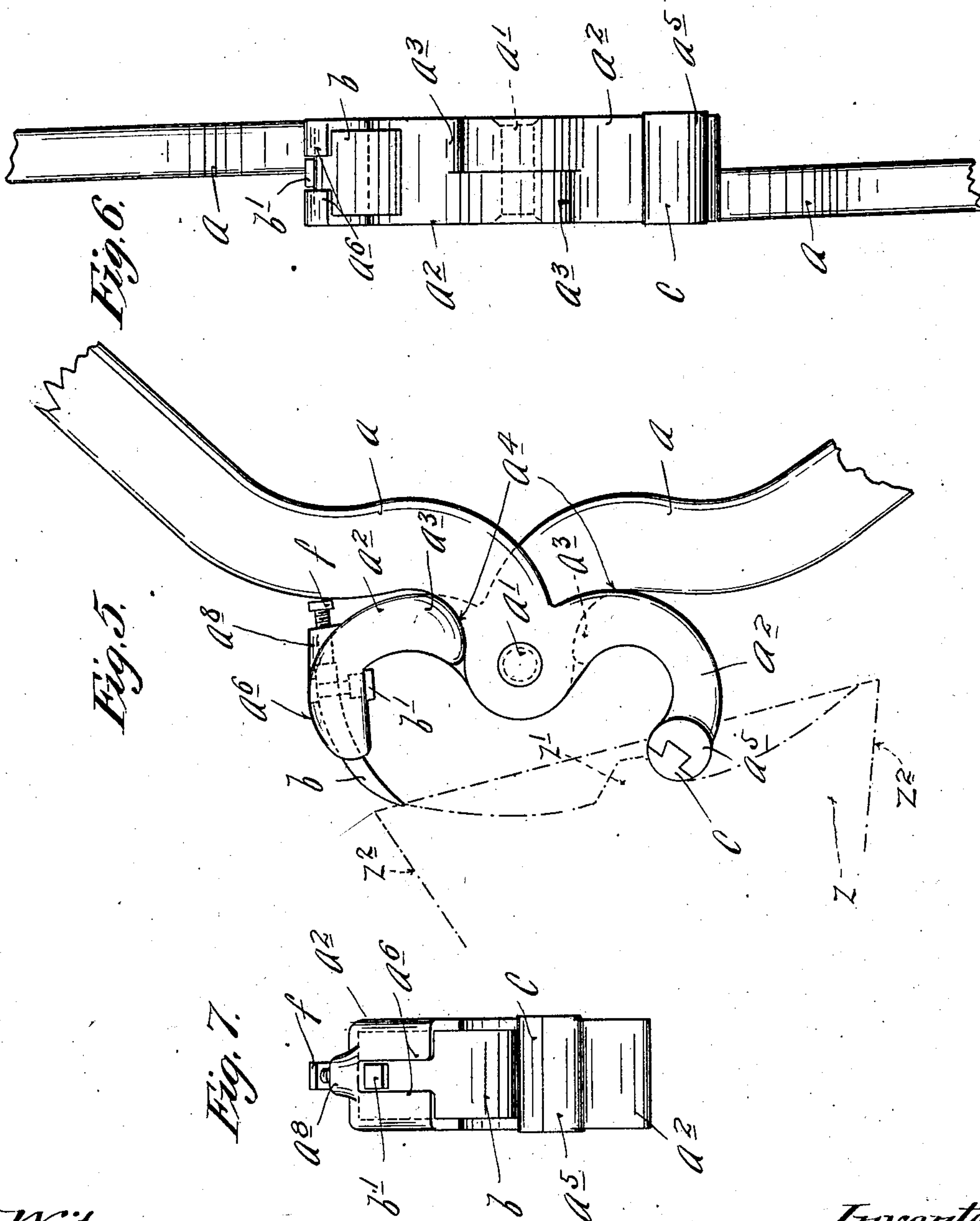
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2 SHEETS—SHEET 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

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HOOF-TRIMMING NIPPERS.

SPECIFICATION forming part of Letters Patent No. 728,856, dated May 26, 1903.

Application filed May 19, 1902. Serial No. 107,898. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. BRYANT, 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 Hoof-Trimming Nippers; 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 improve the construction of farriers' trimming-nippers, used for trimming the hoofs of horses; and to this end it consists of the novel devices and combinations of devices hereinafter described, and defined in the claim.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a plan view of a pair of trimming-nippers embodying my invention, some parts being broken away. Fig. 2 is a side elevation of the same, some parts being broken away. Fig. 3 is a section on the line $x^3 x^3$ of Fig. 2. Fig. 4 is a section on the line $x^4 x^4$ of Fig. 1. Fig. 5 is a plan view of the nippers opened up, some parts being broken away. Fig. 6 is an end elevation of the nippers opened, as shown in Fig. 5; and Fig. 7 is a view corresponding to Fig. 6, but showing the jaws of the nippers closed.

As is usual, these nippers involve a pair of strong levers a , pivotally connected at a' and provided with jaws a^2 . The jaws a^2 are thickened up or made wider than the levers a , so that they leave shoulders a^3 , as best shown in Figs. 1, 2, and 5. At the extreme open position of the levers a and jaws a^2 the shoulders a^3 will strike against the said levers and limit such movements. To make it possible to open the jaws much wider than usual in devices of this character, I curve the levers a , as indicated at a^4 , so that the said shoulders a^3 will fall back into the depressions afforded thereby, and thus permit the jaws to be very widely opened, as indicated in Fig. 5.

The jaws a^2 are bowed or curved in reverse directions, and one thereof is provided with

a rounded end or abutment a^5 , while the other is provided with a knife b . The rounded head a^5 of the one jaw is provided with a block or face section c , of copper or other metal which is softer than iron, so as to prevent the dulling of the edge of the knife b when the cutting edge of the latter is forced against the same. The knife b is curved slightly from end to end, such curve being approximately an arc struck from the center of the pivot a' . Said knife works endwise in a channel-like seat a^6 , formed in the jaw, to which it is applied. A short nutted bolt b' is passed through the butt-end of the tool b and through a slot a^7 in the jaw a^2 . This nutted bolt b' serves to clamp the knife b in its set adjustment; but to adjust the said knife and positively prevent endwise movements thereof I provide a set-screw f , which is screwed through a lug a^8 of the knife-equipped jaw and impinges against the butt-end of the said knife. When the knife is properly set, it will engage with the central portion of the block c when the nippers are closed, and in view of the form of the knife and the way in which it is mounted it will throughout all of its endwise adjustments maintain approximately this same relative position. Furthermore, the knife may of course be easily removed, sharpened, and replaced, and when worn out a new knife may be substituted therefor, thus prolonging the life of the pliers or nippers indefinitely. In view of the curved form of the knife, further, in view of the rounded form of the end or abutment of the jaw which coöperates with the said knife, and also in view of the curved form given to the levers a , whereby the jaws may be very widely opened, the tool is adapted for classes of work which pliers of this character as hitherto provided would not perform.

This tool was especially designed for use in trimming horses' hoofs and particularly for gouging out the bottom of the hoof between the frog and the rim thereof.

In Fig. 5 a portion of a horse's hoof is indicated by dotted lines marked z, z' being the frog of the hoof and z^2 the rim. It will be here seen that when the rounded end or abutment a^5 of the one jaw is placed against

the outside rim of the hoof it serves as a sliding or rolling base of resistance for the knife *b*, and it will also be seen that the said knife, when the levers *a* are closed together
5 from the position indicated in Fig. 5, will gouge or cut into the bottom of the hoof, not abruptly inward, as would be the case with a straight knife, but with a gradual curve, serving to but slightly concave the hoof. It
10 will also be noted that in the use of the tool the jaws *a*² must be very widely opened. It is of course evident that the rounded end or abutment *a*⁵ may be pressed against the frog
15 inward from the rim of the hoof toward the frog.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:
The combination with the levers *a* pivoted

at *a*' and provided with the curved jaws *a*², 20 one of which jaws terminates in the rounded abutment *a*⁵ and the other of which has a channel-like knife-seat *a*⁶ and slot *a*⁷, of the knife *b* working in said seat *a*⁶ and curved
25 approximately in the line of an arc struck from the pivot *a*', a set-screw working through a part of one of said jaws and adjusting said knife, and the nutted bolt *b*' passed through
30 said knife and said slot *a*⁷, and clamping said knife in its set position, substantially as described.

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

JOHN M. BRYANT.

Witnesses:

ELIZABETH H. KELIHER,
F. D. MERCHANT.