

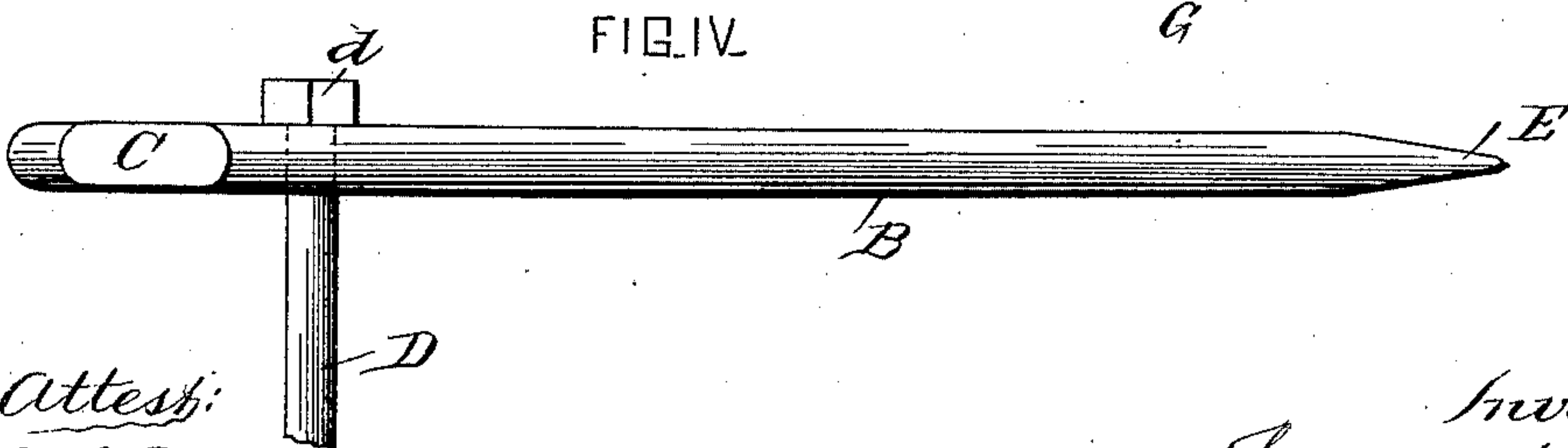
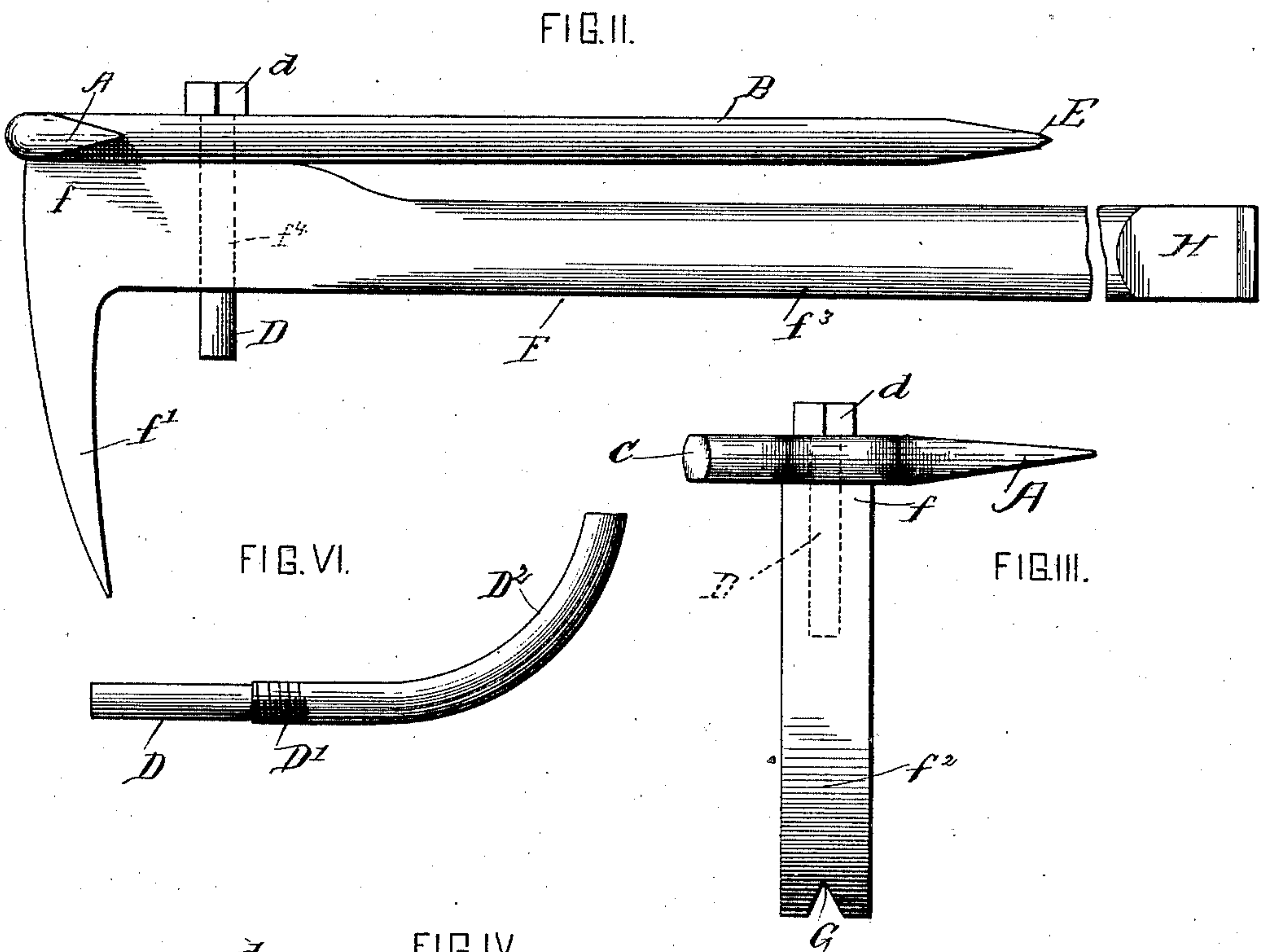
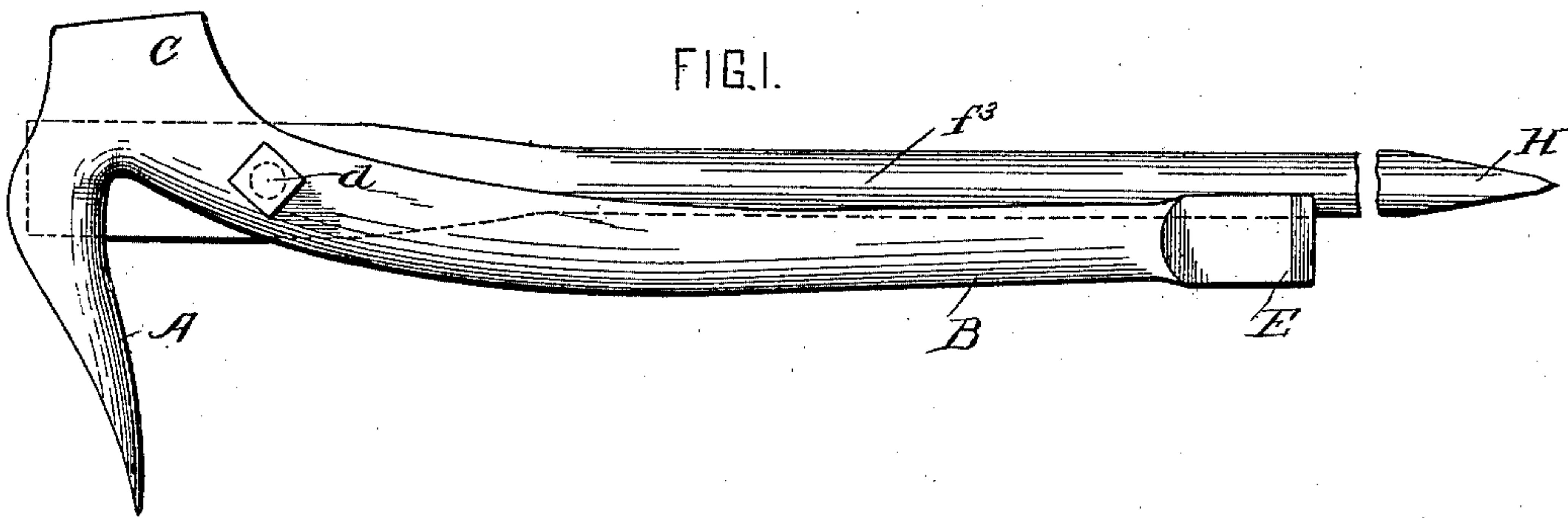
(No Model.)

2 Sheets—Sheet 1.

T. M. HUNT.
STAPLE EXTRACTOR.

No. 475,689.

Patented May 24, 1892.



Attest:
H. S. Rohrer.
W. E. Knight.

Inventor:
Thomas M. Hunt.
By Knight Bros.
Attys.

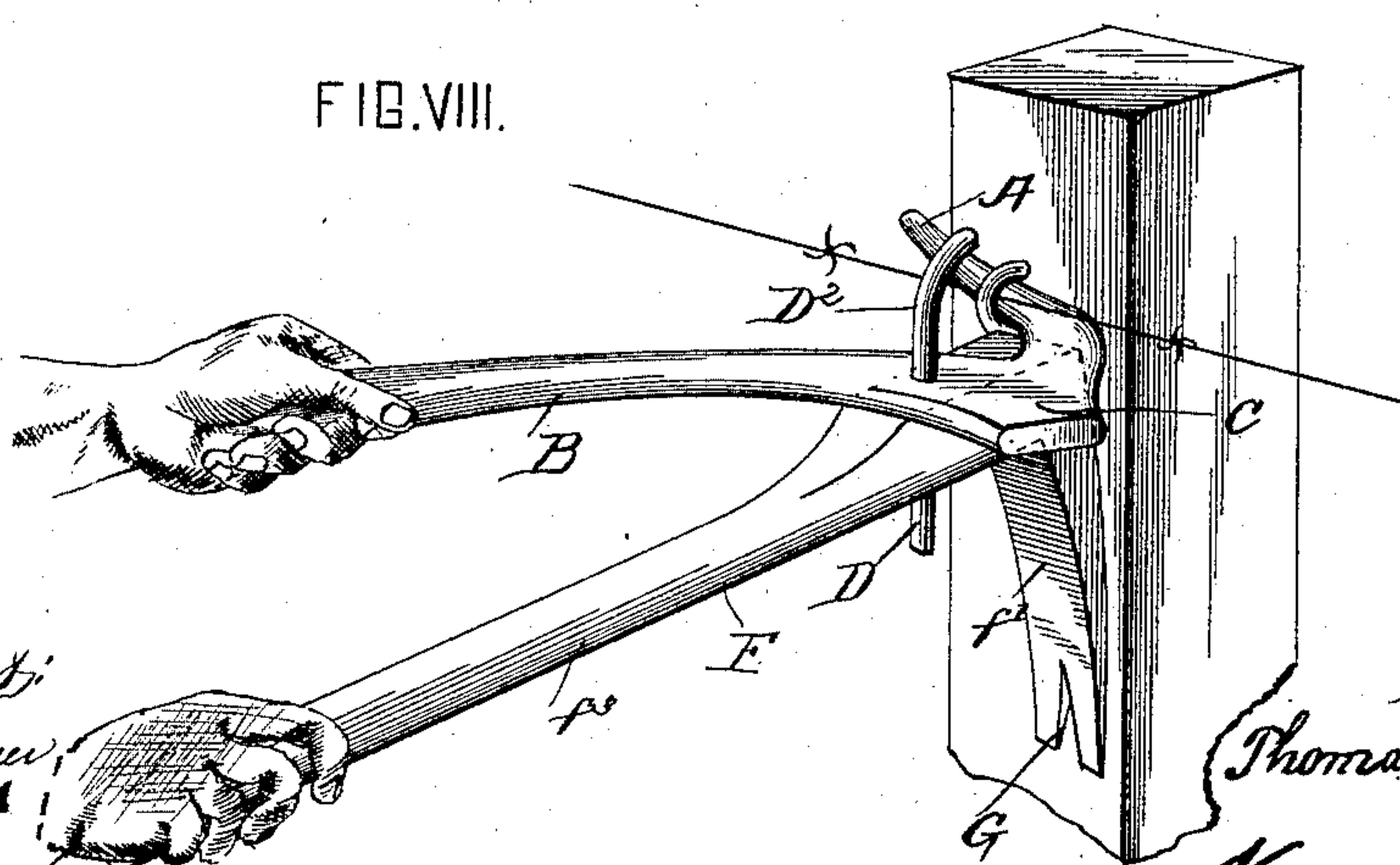
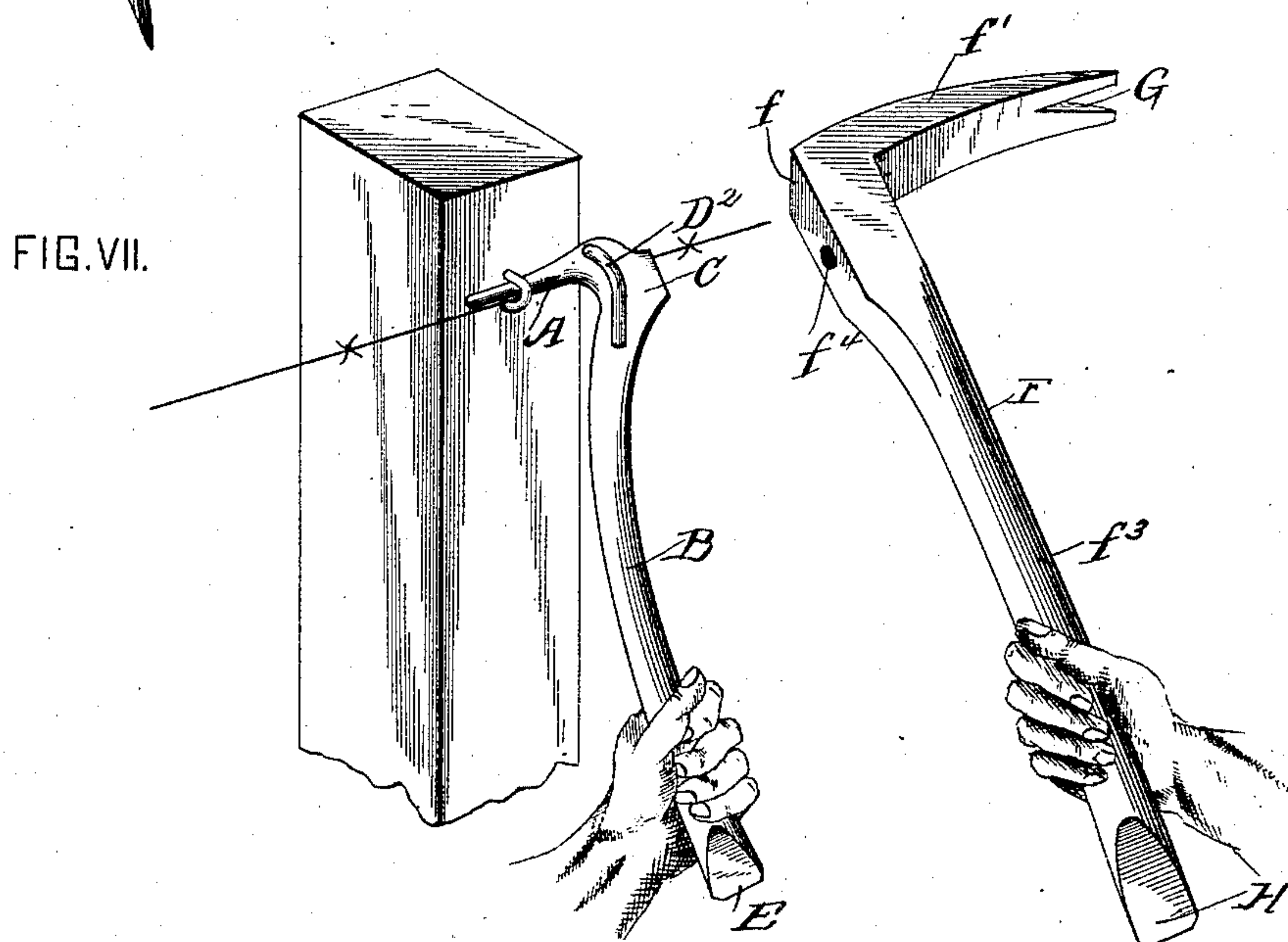
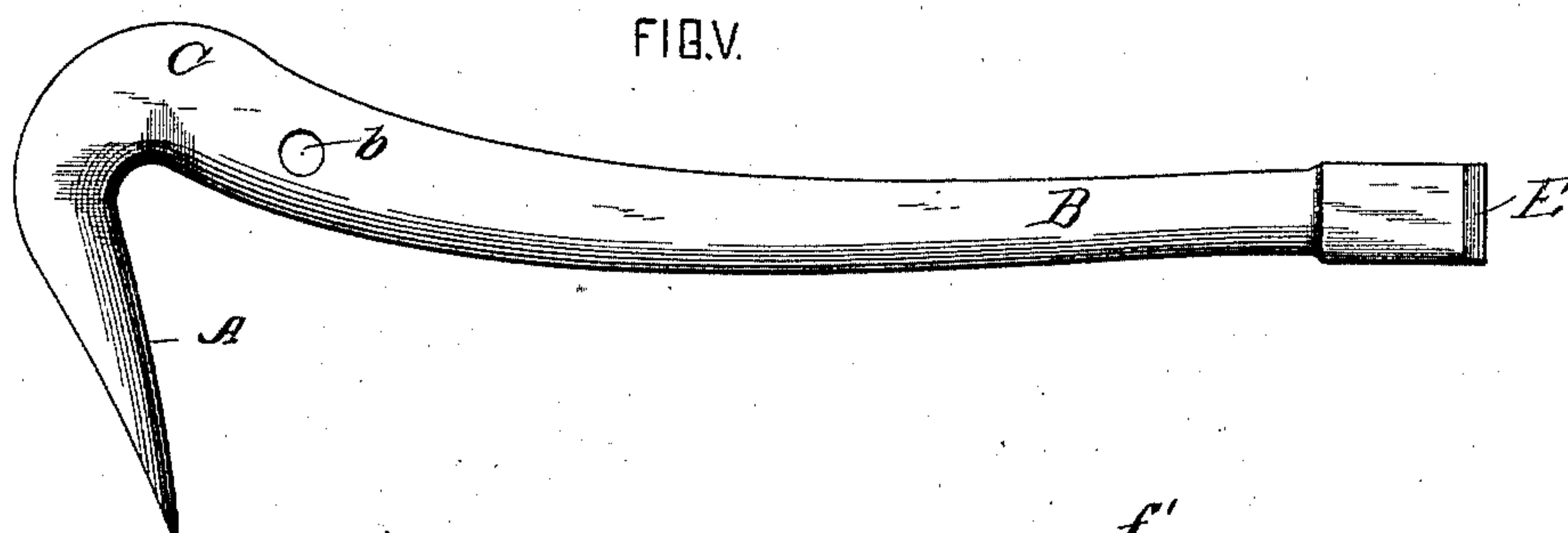
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UNITED STATES PATENT OFFICE.

THOMAS M. HUNT, OF CALDWELL, TEXAS.

STAPLE-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 475,689, dated May 24, 1892.

Application filed August 15, 1891. Serial No. 402,787. (No model.)

To all whom it may concern:

Be it known that I, THOMAS M. HUNT, a citizen of the United States, residing at Caldwell, in the county of Burleson and State of Texas, have invented certain new and useful Improvements in Staple-Extractors; and I do hereby declare that the following specification, taken in connection with the accompanying drawings, which form a part thereof, is a full, clear, and exact description of my improvements, such as will enable those skilled in the art to which they appertain to make and use the same.

The fast-growing popularity of barbed and other kinds of wire fences throughout the United States and the world has created an important need for a simple, cheap, and effective device for facilitating the removal of the wire from the posts, so that the location of a fence may be changed or an old post removed and replaced by a new one, and various devices have been patented for supplying this want with more or less success.

It is the object of my invention to produce a tool which will be specially useful and effective in pulling staples from fence-posts and which will be generally useful as a combination-tool for accomplishing various results.

My invention relates to that class of staple-pullers in which the hook or claw is forced between the head of the staple and the wood in which the staple is embedded.

My invention consists, essentially, of a combined extracting-lever formed with a fulcrum-foot, upon which it is adapted to be rocked, and a staple-extractor hook pivoted to said lever adjacent to the fulcrum-foot and adapted to move transversely of the working face of the fulcrum-foot, whereby the staple can be readily removed and in a majority of instances without being so seriously bent or injured that it could not be saved for subsequent use.

My invention consists, further, of a combined hammer and lever and detachable extractor-hook, whereby the hook can first be forced into position under the staple by the hammer and the staple then drawn out by the combined action of the lever and hook.

My invention consists, further, in providing said combination staple-extractor with a

guard for keeping the wire a suitable distance from the operator to prevent him from being injured by the same.

I will now proceed to describe my invention with reference to the accompanying drawings, and then more particularly point out in the claims what I deem as new therein.

In said drawings, Figure I is a side view of my improved tool. Fig. II is an edge elevation of the same. Fig. III is an end view thereof. Fig. IV is a rear edge view of the extractor-hook and its pivot-pin detached from the extracting-lever. Fig. V is a side view of a slightly-modified form of the extractor-hook detached from the extracting-lever and having the pivot-pin removed. Fig. VI is a detail view of the combined pivot-pin and wire-guard. Fig. VII is a perspective view showing the manner of forcing the extractor-hook under the staple. Fig. VIII is a similar view showing the manner of drawing the staple after the parts are in position.

Similar letters of reference indicate the same parts throughout the several views.

My improved extractor-hook consists of a rounded steel hook A, formed integral with a handle portion B and provided with a suitable head C, which may be squared, as shown in Fig. I, or rounded, as shown in Fig. V, as preferred. Adjacent to the head C is a perforation *b*, in which is secured by any suitable means a rounded steel pin D, having a head *d* for the purpose hereinafter described.

E is a screw-driver formed on the end of the handle B.

F is my improved combined hammer and extracting-lever. It is formed with a hammer-head *f* and fulcrum-foot *f'*, having a curved or rounded bearing-face *f²* and an operating-handle *f³*. Through the handle *f³*, near the hammer-head *f*, is formed a rounded perforation *f⁴*, into which the pin D, carried by the extractor-hook, is adapted to be seated for pivotally supporting said hook.

G is a beveled V-shaped notch formed in the end of the fulcrum-foot *f'*, adapted for handling wire or pulling tacks and nails.

H is a cold-chisel formed on the end of the handle *f³*, very conveniently adapted for cutting wire, &c.

The pin D may be of any suitable form but I prefer to construct it, as shown in Fig.

VI, with the pivot-pin D, the screw-threaded portion D', and a curved extension D², which serves as a guard to prevent the wire which is let loose by pulling the staple from coming in contact with and injuring the operator. In employing this form of pivot-pin the perforation b of the hook is also screw-threaded to receive the screw-threaded portion D', and it is formed the same size from one side to the other, so that the pin can be inserted from either side of the hook to accommodate either a right-handed or a left-handed person. It is very essential that the wire-guard should always assume the proper relative position to the extractor-hook and handle—that is, extending directly out from it in line with the handle—and for this purpose it is quite obvious that I can employ any suitable means for securing the wire-guard to the handle of the extractor-hook which will insure this proper relation.

The operation of my device, which is clearly illustrated in Figs. VII and VIII of the drawings, may be briefly stated as follows: The operator stands in front of the post a convenient distance therefrom, with the combined hammer and lever in his right hand and the extractor-hook in the other hand, the point of the hook being placed at the point of entrance under the staple and the pivot-pin D being secured in the perforation b. Then with the hammer he forces the hook a sufficient distance through and behind the staple. He then places the "hammer-lever" under the extractor-hook, as shown in Fig. VIII, and inserts the steel pin D in the perforation f⁴, the curved bearing-face of the fulcrum-foot resting well against the post and the curved extension D² extending out toward and over the wire. The device is then in position for drawing the staple, which is very easily done by pressing down on the lever-handle f³, the fulcrum of the lever being preferably directly under the staple and the handle of the hook being held while the pull is being made. When the staple is extracted, it is either caught in the hand or allowed to fall to the ground.

In driving the extractor-hook between the staple and the wood in which it is embedded of course it is the aim of the operator to clear the wood, if possible, and engage the staple only. However, if the hook should penetrate the wood the staple will draw out about as easily when the power is applied, for as the hook penetrates between the staple and wood the staple is slightly loosened and affords a comparatively easy entrance for the hook. The general shape of the hook A is round, which allows the operator to hold it at any convenient angle when inserting it in the staple, and when the pin D is inserted in the perforation f⁴ of the lever f³ in making ready to draw the staple the hook will turn readily in the staple to the proper adjustment, the operator either leaving go the handle B for this purpose or holding onto it only suffi-

ciently to aid in bringing about the adjustment. The handles of the levers are rounded for convenience in handling. The tools are preferably made of steel or other suitable metal.

The implement shown in Figs. VII and VIII is obviously much enlarged in proportion to the fence for the purpose of better illustrating the operation.

In manufacturing I prefer to make the combined hammer and lever about fourteen inches in length and the extractor hook and handle nine inches. However, any other lengths approximating these will answer equally as well. The pin D is detachably seated in the perforation b, so that it can be removed in case it should become broken or withdrawn and inserted from the reverse side in case it is desired to make it convenient for a left-handed person.

Though I have described my device constructed with a wire handle, cold-chisel, and screw-driver attached, it is obvious that these parts could be omitted without departing from the spirit of my invention.

With my improved staple-extractor there is no difficulty whatever in pulling staples of any kind, no matter how deeply they are embedded, whether on a corner of the post or above or below a knot or embedded in the hardest wood.

Having thus fully described my invention and the manner of operating the same, the following is what I claim as new therein and desire to secure by Letters Patent:

1. The combination of a suitable extracting-lever formed with a fulcrum-foot, upon which it is adapted to be rocked, and a staple-extractor hook pivoted to said lever adjacent to the fulcrum-foot and adapted to move transversely of the face of the fulcrum-foot, substantially as and for the purpose set forth.

2. The combination of the staple-extractor hook formed with a single pointed end and provided with a pin D, extending from one of its sides, and the extracting-lever having a perforation f⁴ in its upper edge, into which the pin D is adapted to be inserted for pivoting the hook to the said lever, so that it will extend transversely thereto, all substantially as and for the purpose set forth.

3. The combination of a suitable extracting-lever having a perforation f⁴, an extractor-hook provided with a screw-threaded perforation b, and a screw-threaded pivot-pin adapted to be inserted in said screw-threaded perforation and be seated in said perforation f⁴, substantially as set forth.

4. The combination of a suitable extracting-lever, a staple-extractor hook pivoted thereto, and a rigid arm or guard extending up from said extractor-hook and adapted to prevent the wire from coming in contact with and injuring the operator, substantially as set forth.

5. The combination of a suitable extracting-lever, a staple-extractor hook pivoted thereto, and a curved arm or wire guard rigidly se-

cured to said hook and extending therefrom toward the hook end of the implement, substantially as set forth.

5 6. The combination of a suitable lever having a perforation f^4 and an extractor-hook provided with a combined pivot-pin D and wire-guard D^2 , substantially as set forth.

10 7. The combination of a suitable lever having a perforation f^4 and an extractor-hook provided with a combined pivot-pin D and curved wire-guard D^2 , substantially as set forth.

8. The combination of the staple-extractor hook A, provided with a handle B, a head C, and a pin D, extending from its side, with an extracting-lever provided with a suitable perforation f^4 in its upper edge, a fulcrum-foot f' , a head f , and an operating-handle f^3 , substantially as herein set forth. 15

THOMAS M. HUNT.

Witnesses:

S. Y. JACKSON,
T. V. MURRAY.