

No. 666,730.

Patented Jan. 29, 1901.

A. S. ANDERSON.
LAWN RAKE.

(Application filed Apr. 27, 1900.)

(No Model.)

Fig. 1.

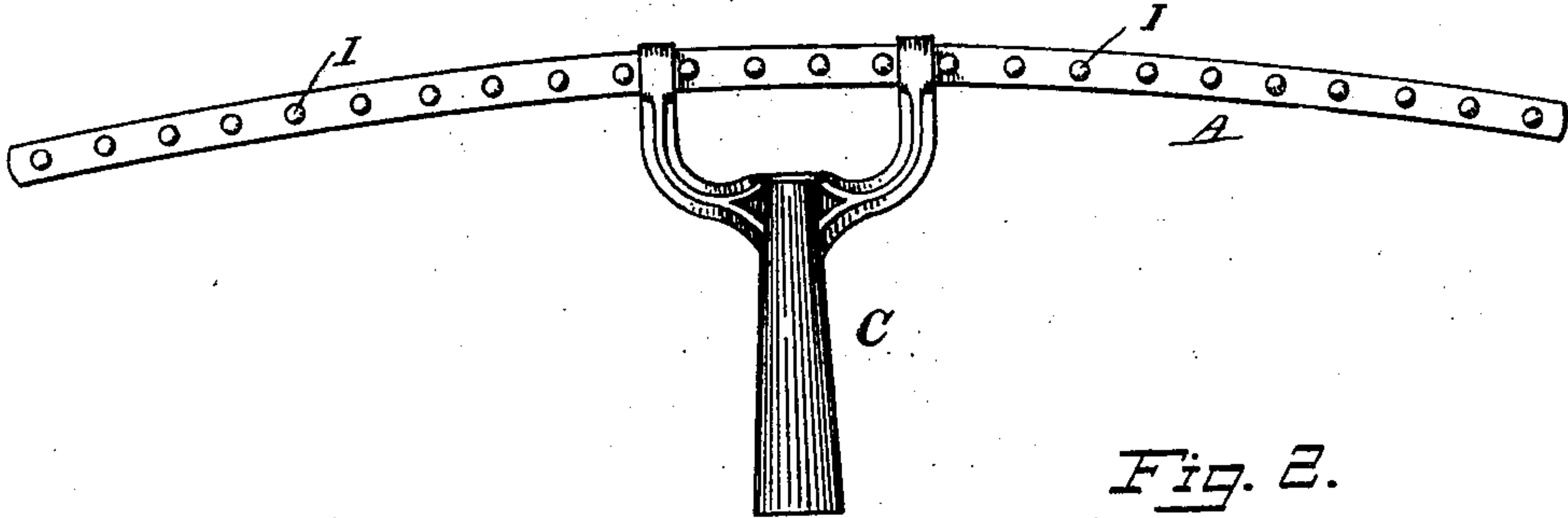


Fig. 2.

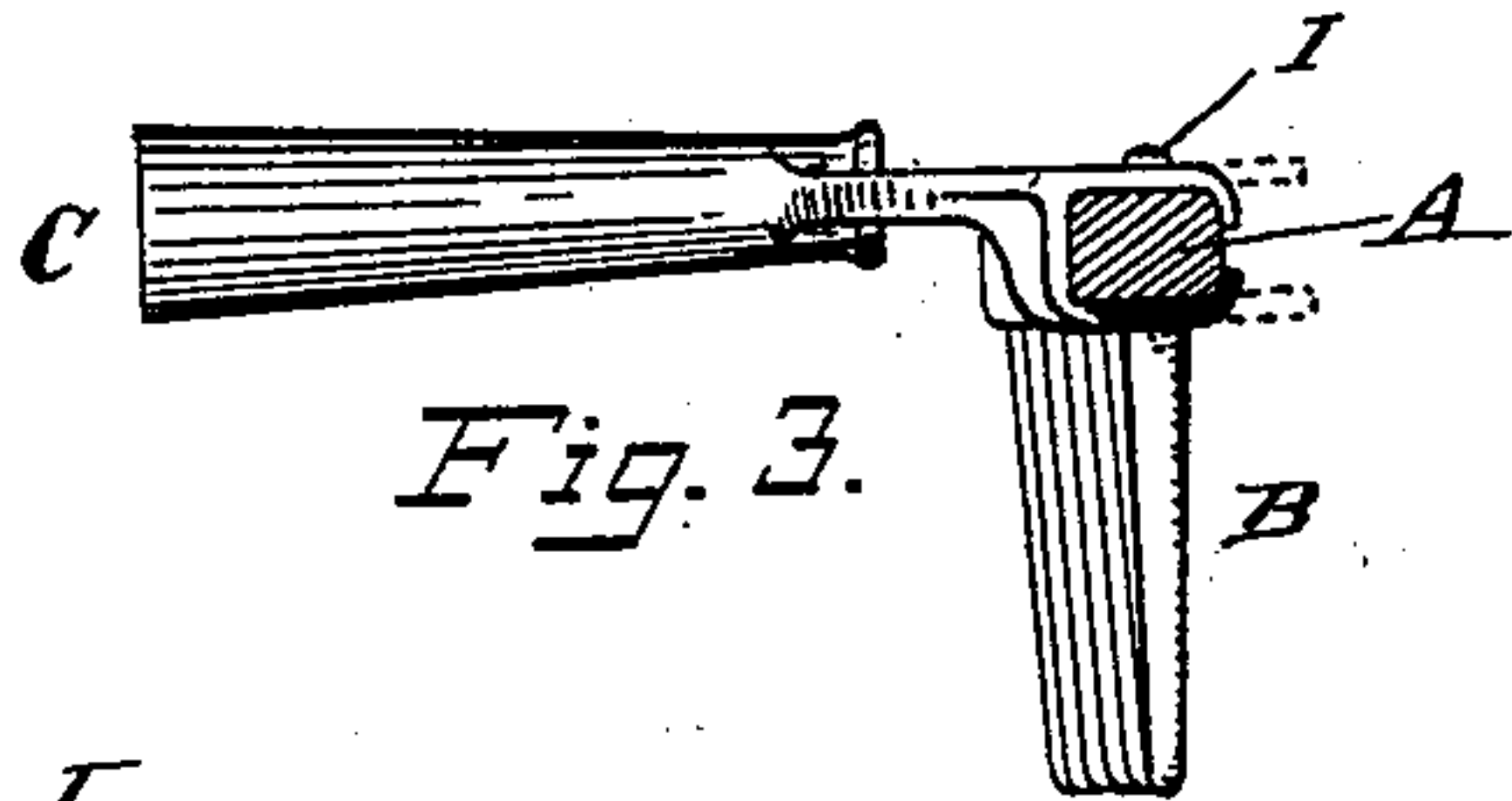
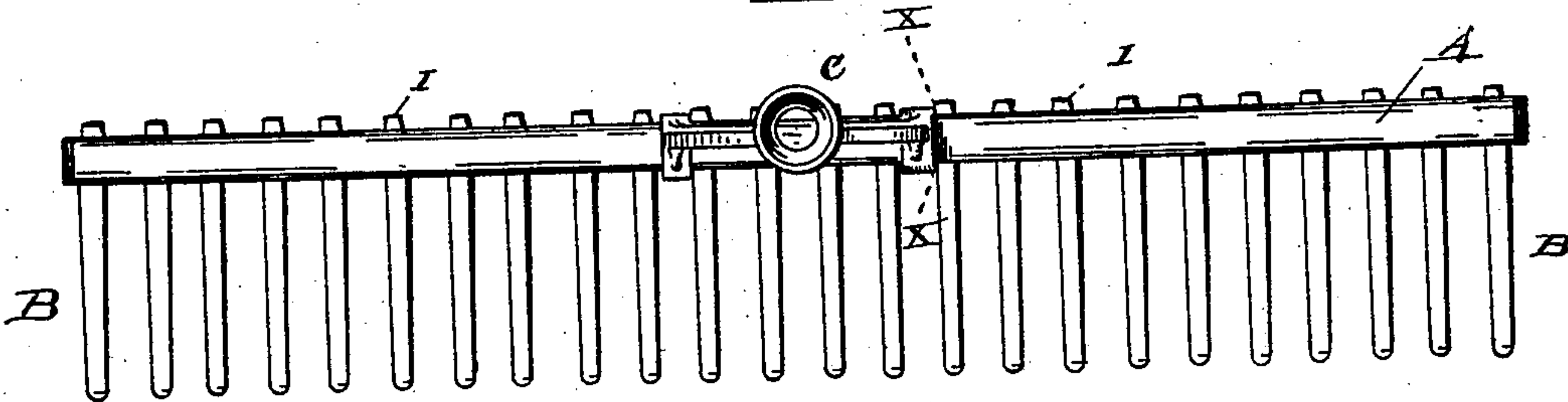


Fig. 3.

Fig. 4.

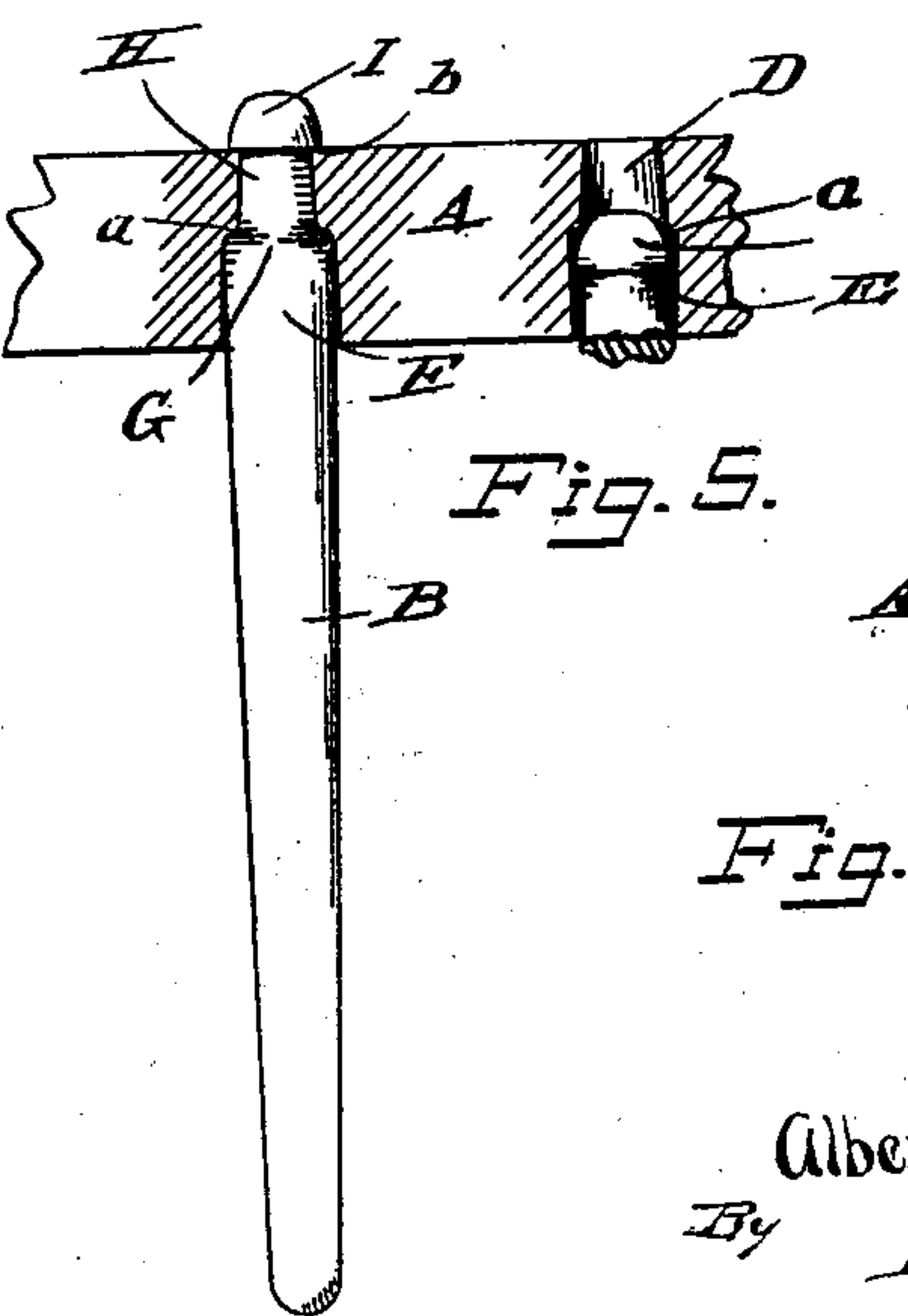
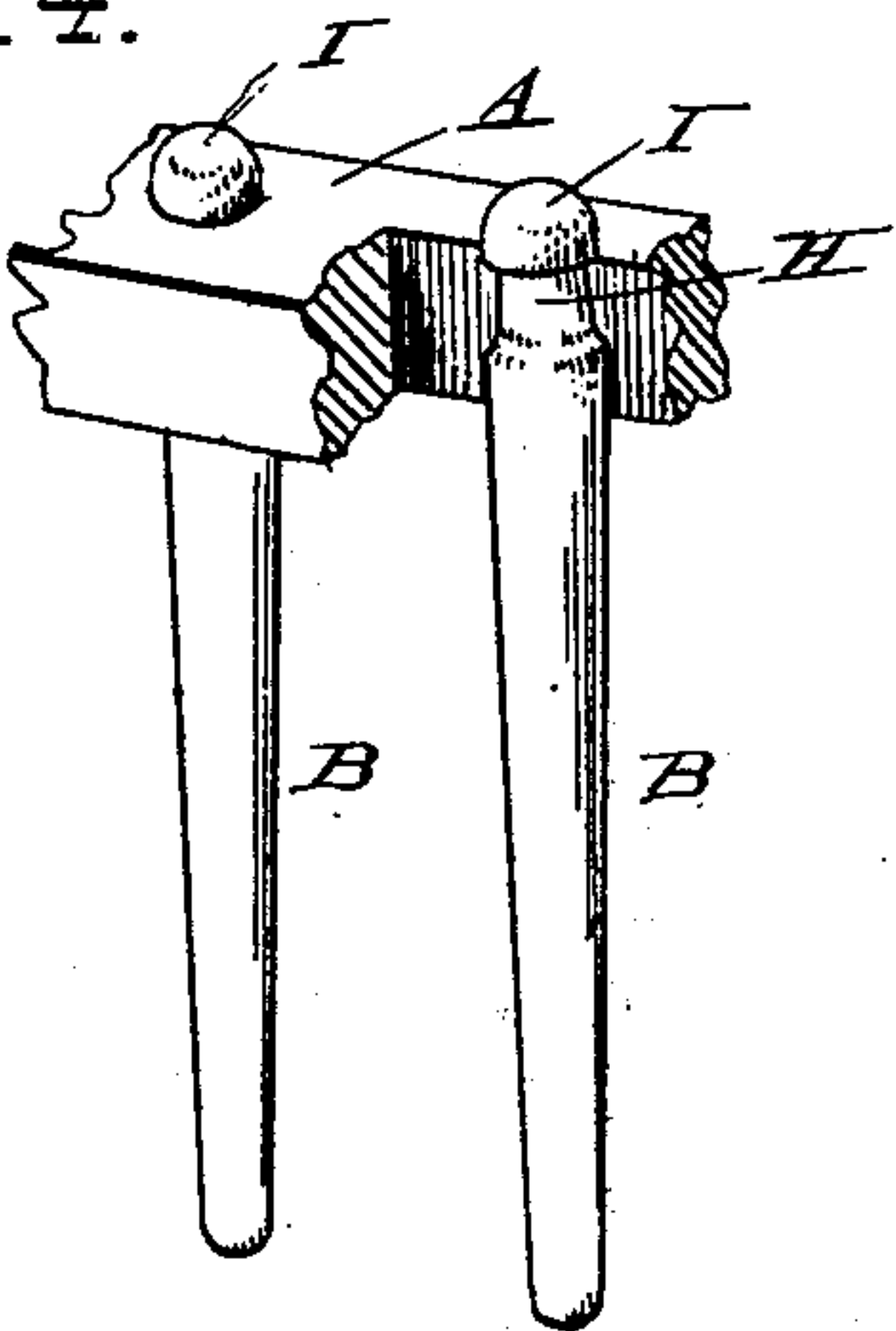


Fig. 5.

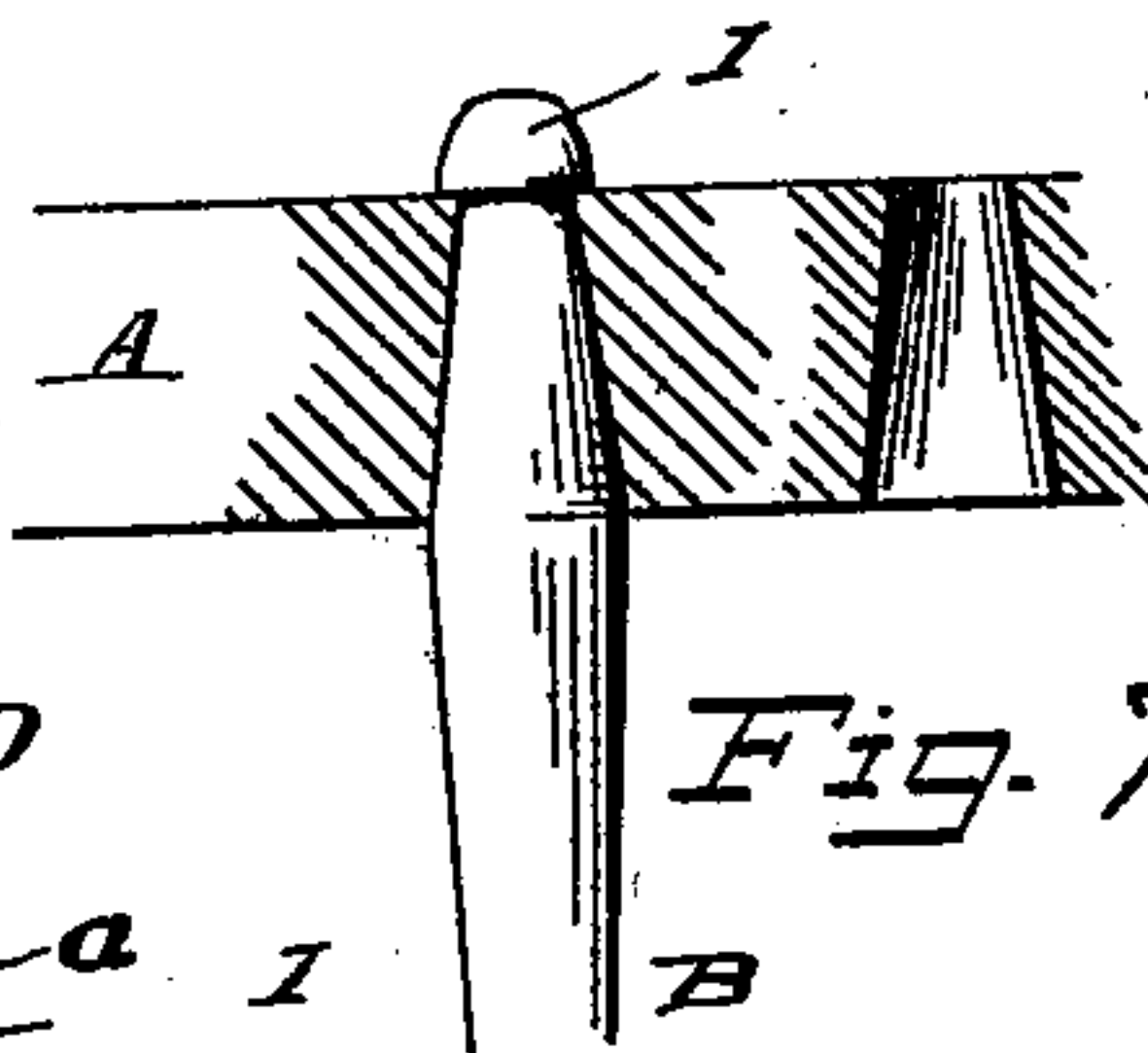


Fig. 7.

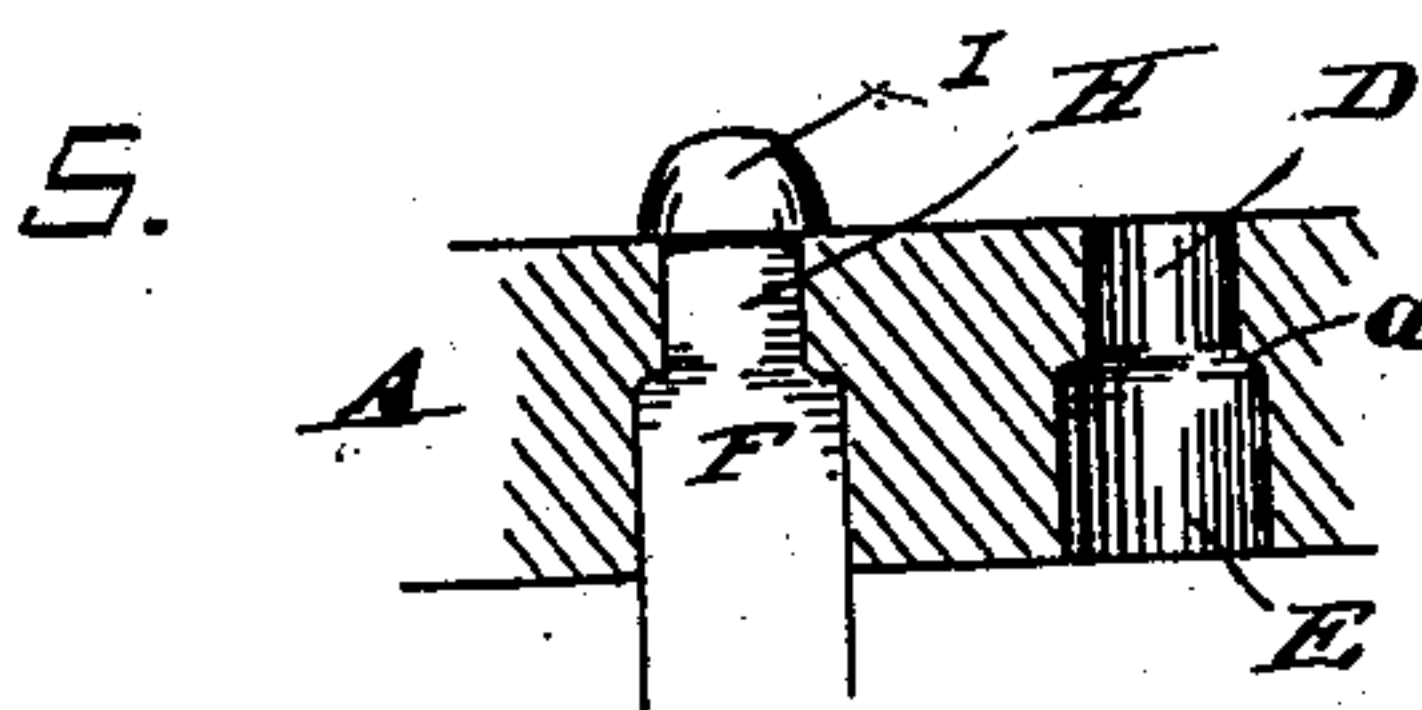


Fig. 6.

WITNESSES-

J. H. Schuch
J. H. Walker

INVENTOR-
Albert S. Anderson
By *L. M. Thurlew*
ATTY.

UNITED STATES PATENT OFFICE.

ALBERT SAMUEL ANDERSON, OF GALVA, ILLINOIS.

LAWN-RAKE.

SPECIFICATION forming part of Letters Patent No. 666,730, dated January 29, 1901.

Application filed April 27, 1900. Serial No. 14,642. (No model.)

To all whom it may concern:

Be it known that I, ALBERT SAMUEL ANDERSON, a citizen of the United States, residing at Galva, in the county of Henry and State of Illinois, have invented certain new and useful Improvements in Lawn-Rakes; and I do hereby declare that the following is a full, clear and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to lawn-rakes.

The object of the invention is primarily to provide a new means for holding the rake-teeth without resorting to mechanical devices, but merely depending upon the compression of the wood of which the teeth are made and the consequent enlarging thereof when gaining its normal condition after such compression, all of which will be clearly pointed out in the following specification and claims.

The invention further relates to certain details of construction and arrangement of parts clearly described and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the rake. Fig. 2 is a rear view thereof. Fig. 3 is a sectional view through line X X, Fig. 2. Fig. 4 is a perspective view of a section of the rake-head, showing the position of rake-teeth therein. Fig. 5 is a longitudinal section of the rake-head, showing a tooth located therein and another being entered in its socket. Fig. 6 is a modified form of rake-tooth and the socket for receiving it. Fig. 7 is also a modified form of a tooth and socket.

A indicates a rake-head formed in the arc of a circle and having a series of teeth B therein as in common practice.

C indicates a handle, of malleable iron and of the form shown, having a hollow shank. The said handle is forked, and its projections are adapted to clamp the rake-head, as shown in Figs. 1 and 3. In the latter figure dotted lines show the position of the projections before being bent down upon the rake-head.

The mode of fastening the teeth I value very highly, and I believe that the same is entirely new and novel. The rake-head A, which is made, preferably, of tough wood, is bored at regular intervals to form sockets for receiving the teeth, as shown. The sockets consist of the bores D and E of two sizes,

as shown in Figs. 5 and 6, the smaller bore being at the top of the head and the larger one at the bottom. However, the socket may be formed by means of several bores of varying sizes, if desired. The tooth F is made of wood and may be either tapered or straight and is provided with a shoulder at G, which rests against the shoulder *a* of the socket D E. A neck H fills the bore D and the shank the bore E. A head I on each tooth forms a shoulder *b*, as shown, and rests on and engages the top surface of the rake-head. I have illustrated three forms of the teeth and bore, as above described. In Fig. 5 the bore D of the socket tapers toward the top from the shoulder *a*, and the neck of the tooth tapers toward head I from the shoulder G to correspond. In Fig. 6 the neck H and bore D are cylindrical in form or of the same gage throughout, while the bore shown in Fig. 7 is tapered entirely through the head and the tooth is made to correspond. Thus it will be seen that I do not limit myself to any particular construction as to these parts. The manner of entering the tooth may be understood from the following: The head I, which is larger than the bore D, is compressed to such a size that it can be readily inserted in the bore E and by pressure can be forced into and entirely through the smaller bore D until the shoulder B is in line with the top of the said rake-head and rests thereon. When thus inserted, the head is free to expand, whereby its shoulder is caused to gain a larger surface of contact. As before intimated, the teeth are made of wood to permit compression and necessary expansion, whereby the teeth will be firmly held in place.

I am aware that it is not new to use metal teeth driven through the rake-head; but I believe it is new to fasten or lock wooden teeth in the manner described. The heads of the teeth may be permitted to expand of their own accord after insertion into the head, or they may be laid in water to swell them; but I do not find this latter operation necessary, as in use the wet grass or even the moisture in the air is sufficient to bring about the desired end. By the same means the holes in the rake-head contract and grasp the tooth. It is impossible for the teeth to leave the rake-head after being inserted, as is evident, it

being understood that in either form of tooth the enlarged portion or shoulder below the neck H will prevent said tooth slipping up through said head. I may employ other forms of the tooth than that shown in the figures; but my main idea is to provide a wooden tooth seated in a rake-head and so arranged that by compression of its head it may be entered and located within the head and then held by expansion, as has been stated. The rake-head A may be of metal as well as wood; but wood presents a better appearance, and, furthermore, in using that material a better fastening results, for the reasons already stated. The swelling of the tooth and the contraction of the wood around the socket both aid in making a tight joint. The shape of the head of the tooth may be varied at pleasure and may be made of any size, as before described. The rake is formed in the arc of a circle, whereby only a few of its teeth at the middle come in contact with the ground when held in the usual position. In other words, the teeth on each side of the four or six middle ones are above the ground at all times and do not touch it, but at the same time perform their work perfectly. A straight rake would have all its teeth in contact with the ground. The work would then be harder to accomplish and the grass would be torn up; but with only a few in contact little harm can be done and the work is easier and more satisfactory.

Having thus described my invention, I claim—

1. In a rake, a rake-head having a series of bores, a series of imperforate teeth seated in said bores, each having a compressible head at its upper end larger than the smallest portion of the bore carrying the tooth, said head forming a shoulder above the rake-head when expanded to prevent the tooth falling out, a shoulder on the tooth below the head and detached therefrom for engaging the rake-head substantially as set forth and described.

2. In a rake, a rake-head having a series of bores, a series of imperforate teeth seated in

said bores, a compressible head at the top of each tooth larger than the smallest portion of the bore and adapted to engage the top of the rake-head to prevent the tooth from falling out, a shoulder on the tooth below the head and detached therefrom, and a shoulder within the rake-head to engage the said shoulder of the tooth all for the purpose set forth and described.

3. A rake-head having a series of bores, each of which consists of two recesses of different sizes and cylindrical in form, the larger of the two being located beneath the smaller one in the lower portion of the said rake-head, teeth for the said bores, each having a head adapted to pass through the said bores and rest upon the top of the rake-head; each tooth having a neck to correspond with the smaller bore and a shoulder below it constituting a portion of the body of the tooth, the latter adapted to conform with the larger recess in the rake-head substantially as set forth.

4. In a rake, the rake-head of wood having the bores D and E to form a recess, a rake-tooth having a neck smaller than its body and a head adapted to pass through the bores D and E and rest upon the top of the said rake-head substantially as set forth.

5. A rake-head having bores D and E and a tooth cylindrical in form to correspond therewith and seated therein, and a head having a shoulder adapted to pass through both said bores and engage the top of the rake-head by means of said shoulder.

6. In a rake, a rake-head, a handle C therefor, a series of bores D and E in said rake-head to form a recess, a rake-tooth having a neck H smaller than its body and a head I adapted to pass through the bores D and E and rest upon the top of the rake-head substantially as set forth.

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

ALBERT SAMUEL ANDERSON.

Witnesses:

DYER FORD,

GEO. D. PALMER.