

LEEDS & HOLLOWELL.

Post-Hole Auger.

No. 52,180.

Patented Jan 23, 1866.

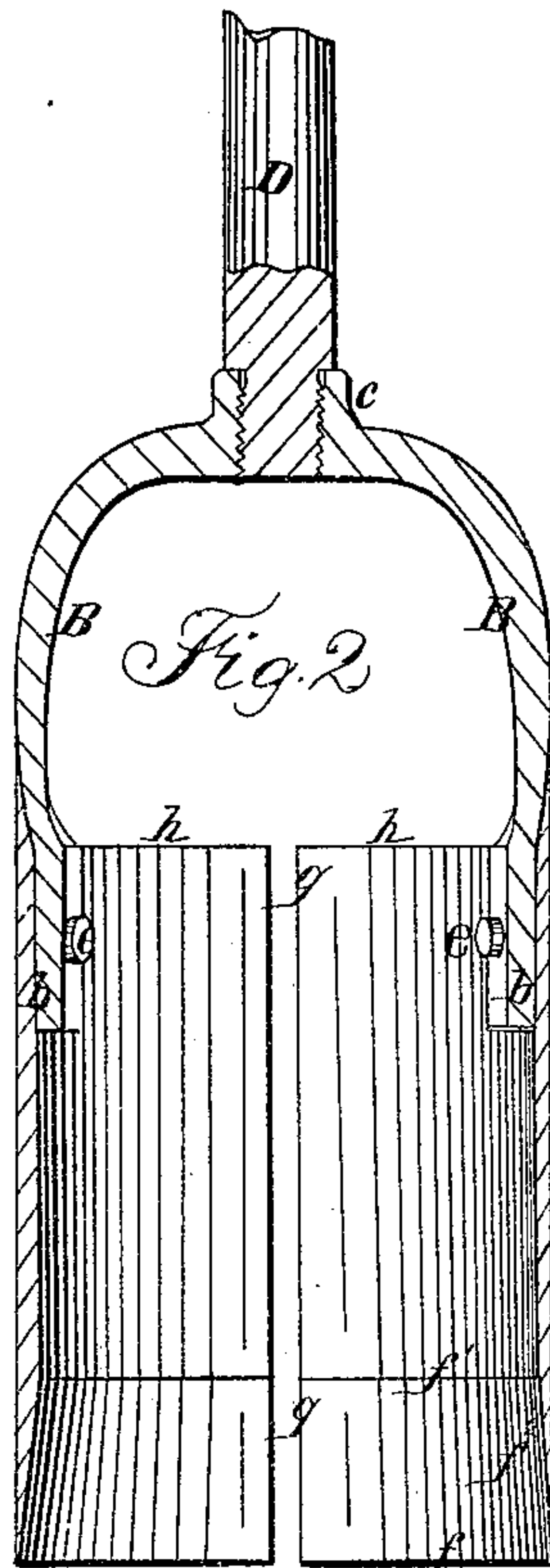
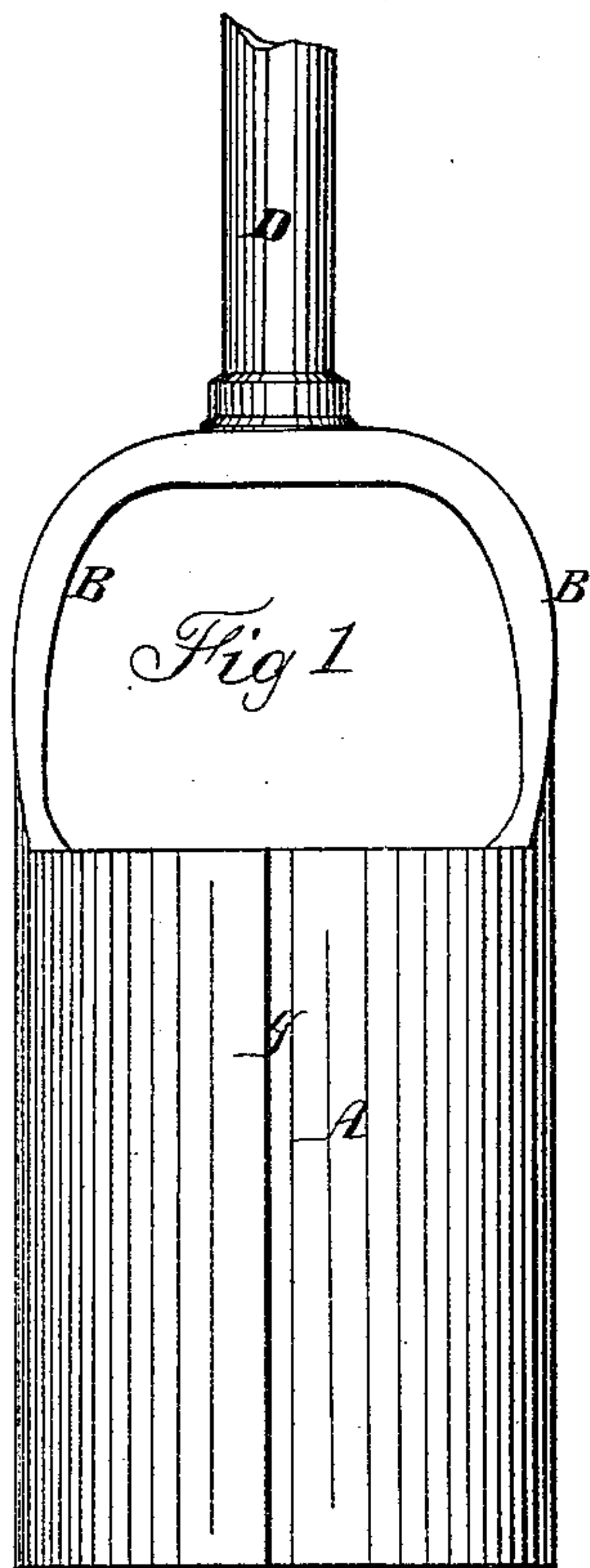
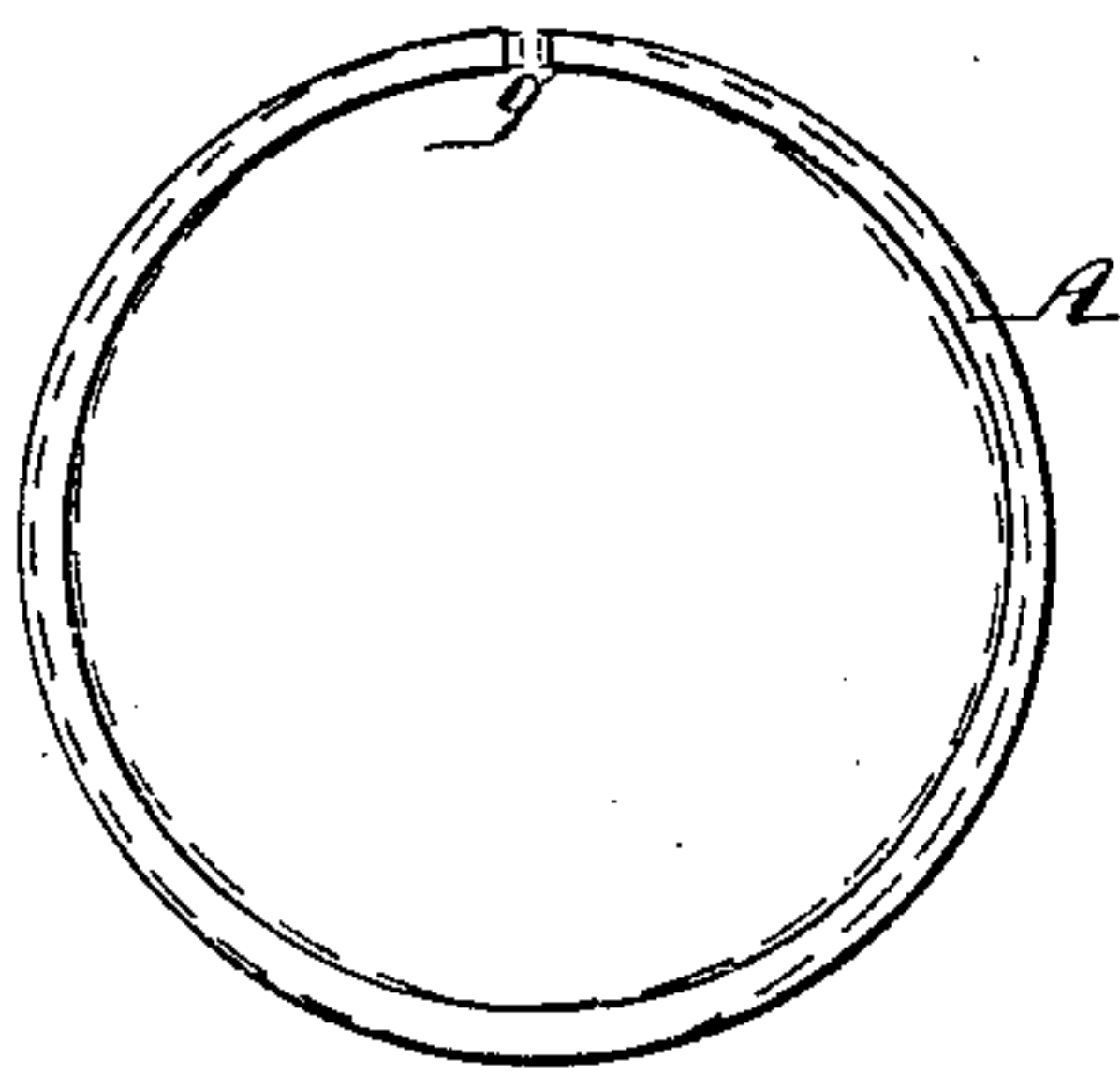


Fig 3



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UNITED STATES PATENT OFFICE.

JOSIAH M. LEEDS AND JOSEPH E. HOLLOWELL, OF KOKOMO, INDIANA.

IMPROVED POST-HOLE AUGER.

Specification forming part of Letters Patent No. 52,180, dated January 23, 1866.

To all whom it may concern:

Be it known that we, JOSIAH M. LEEDS and J. E. HOLLOWELL, of Kokomo, Howard county, and State of Indiana, have invented a new and useful Improvement in Augers for Digging Post-Holes; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, forming a part of this our specification, like letters in the several figures of said drawings indicating the same parts, and in which drawings—

Figure 1 is a front elevation of our improved post-auger; Fig. 2, a vertical longitudinal section, and Fig. 3 a cross-section of the same.

The object of our invention is the construction of a post-auger or implement for digging post-holes in the earth in such manner that the springy or elastic qualities of the metal of which the implement is made shall be utilized for retaining the earth within its grasp when in the act of digging, in lieu of relying upon the packing of the earth within the auger in order to raise the earth from the hold being dug.

In that class of post-augers which have a solid or closed head with a longitudinal slot or opening through which an implement may be inserted to pry out the earth, the objection exists, to wit, that the earth must, in the act of digging, be packed within the auger in order to lift it from the hole, and which, when packed, it is difficult to remove. By our invention, however, this difficulty is obviated, as the springing action of the implement sufficiently grasps the earth to hold it while being removed from the hole, and when lifted from the hole the vibration of the body of the auger inclosing the earth, if the body be struck against any solid object, will at once cause it to release its grasp and so allow the load to fall out.

In the drawings, A indicates the body of the auger, made of spring metal, and cylindric form, but with an opening or slot throughout its entire length, as shown at *g*. This cylindric spring-metal body A is attached to braces B, formed with a screw-socket, *c*, therein, as

clearly represented in Fig. 2, and which socket is to receive the handle D of the implement.

The braces B we have shown with projections *b*, through which rivets, as at *e*, may be passed, in order to securely fasten the spring-metal body A of the auger to the braces B. These braces rise a considerable height above the open top *h* of the auger before they unite and form the socket *c*, and thus, as indicated in Fig. 2, there will exist a capability for the implement to be expanded its entire length between its cutting-edge *f* and the socket which receives the handle D.

Thus constructed, it will be seen that in the use of the implement its body A is capable of more or less expansion as the earth is forced into it in the act of digging, and that the springing capability of the auger will retain the earth dug to enable the operator to lift it from the hole.

It will also be seen that when the auger is charged with a load of dirt or earth a sudden blow of its body upon a resisting substance will cause it to close in upon the dirt, thereby compressing it, and so loosen it as to cause it readily to drop out.

As clearly shown in Fig. 2, the bottom of the auger is formed with a cutting-edge, *f*, the bevel of such edge being formed on the inside of the body A, so that a larger diameter of cut will be made by said edge *f* than the diameter of the body of the auger above the commencement, at *f'*, of the beveled portion *f*². The earth is thus, in the act of using the implement, forced into the body A above the point *f'*, and once there is retained by the clasp- ing action of the spring metal of which the body A is composed. If this beveled portion *f*² were to be made upon the outside of the body A it is clear that the clasp- ing capability of the auger would not be brought into action unless the implement was so used as to pack the earth in the body A to a very considerable extent, in order to have it retained therein during the act of lifting the im- plement from the hole being dug. Besides this, if the bevel *f*² is made upon the inside of the implement, it can very readily and with

perfect uniformity be sharpened upon the ordinary conical grindstone; whereas, if the bevel should be formed upon the outside of the auger, the act of sharpening the implement with uniformity would be very difficult.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

A post-auger having its body A composed

of spring metal, and with its cutting end beveled, as at $f f' f^2$, in combination with braces B B or their equivalents, substantially as described.

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