

J. T. SARGENT.

Garden-Hoe.

No. 10,162.

Patented Oct. 25, 1853.

Fig. 6.

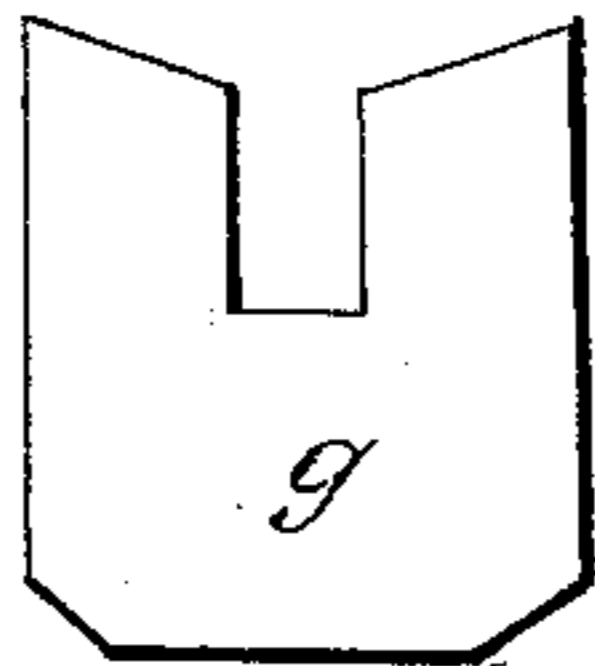


Fig. 7.

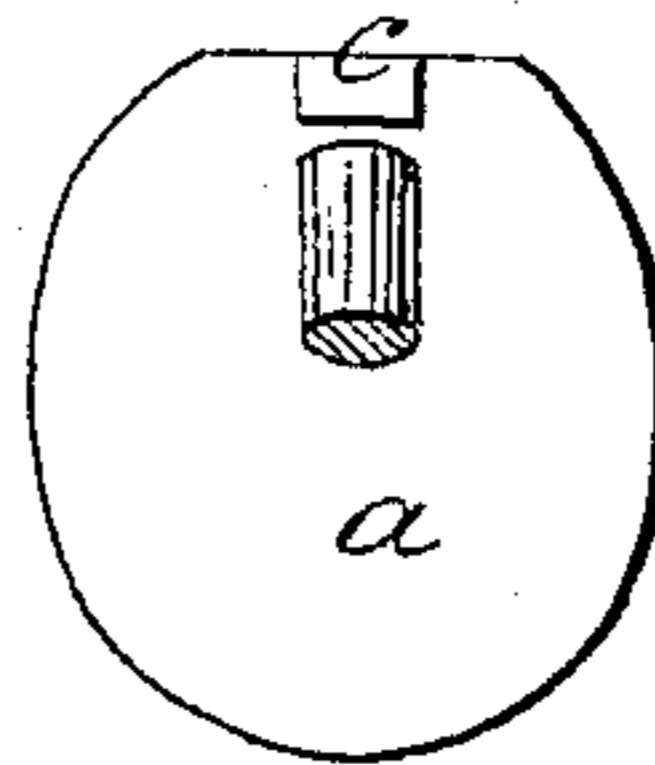


Fig. 4.

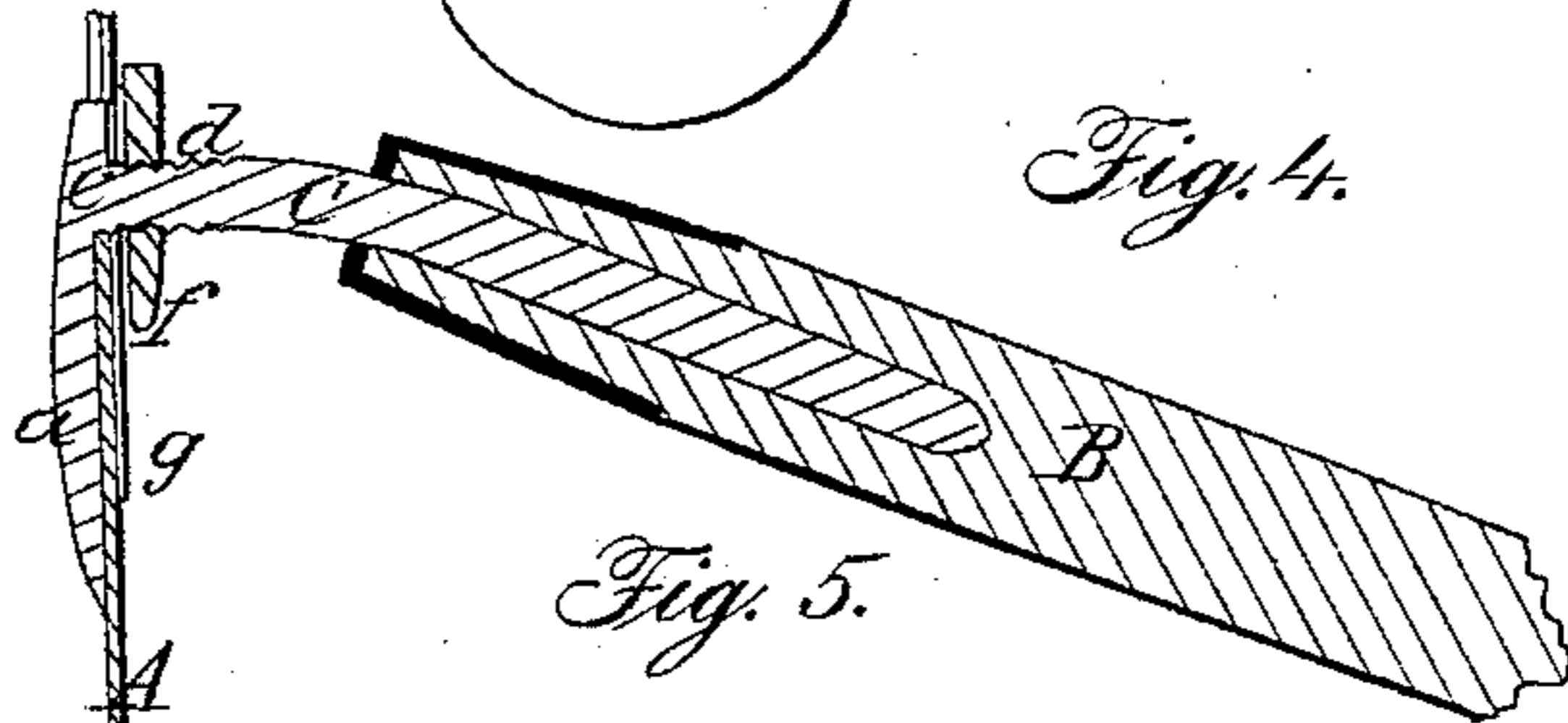


Fig. 5.

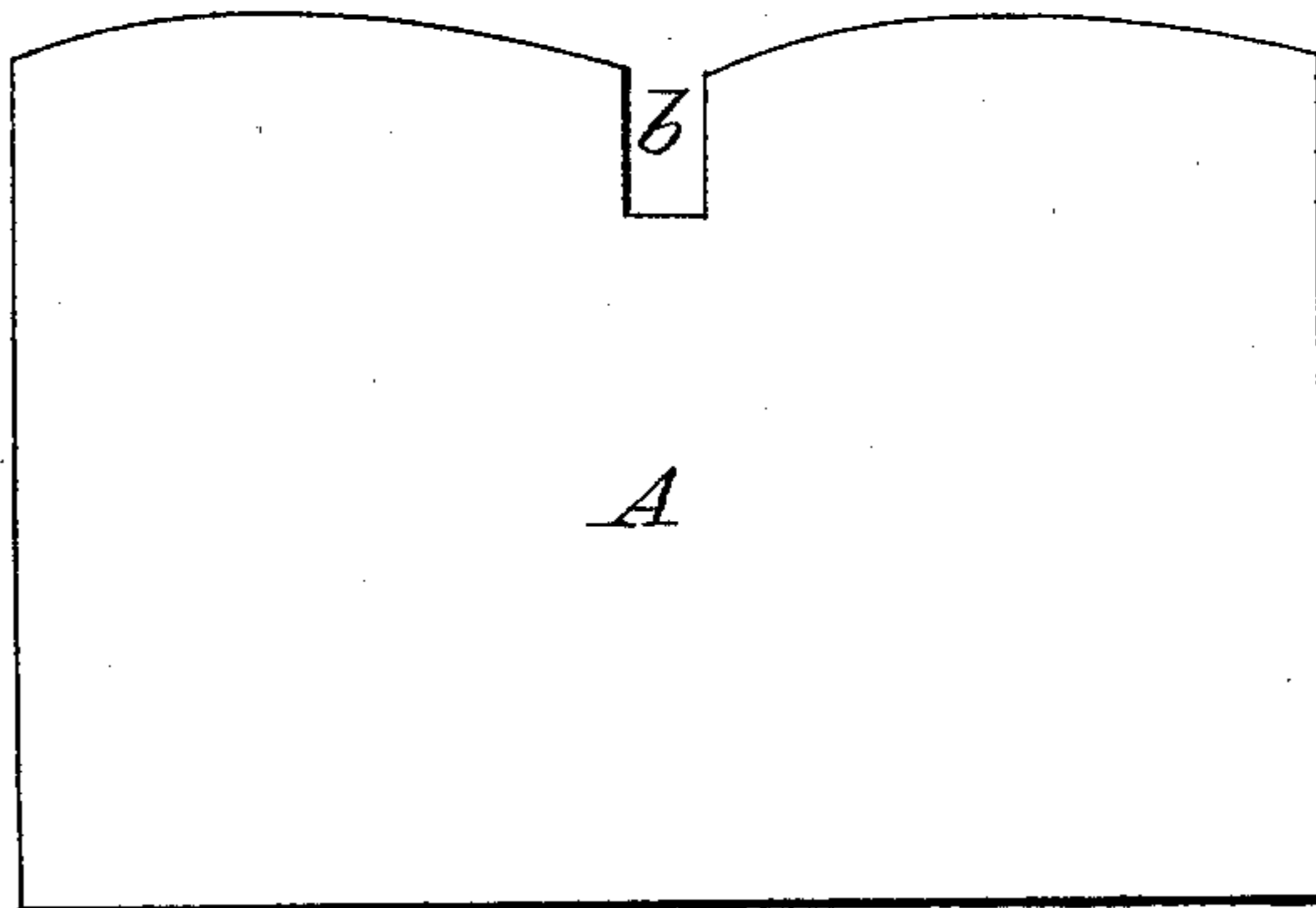


Fig. 1.

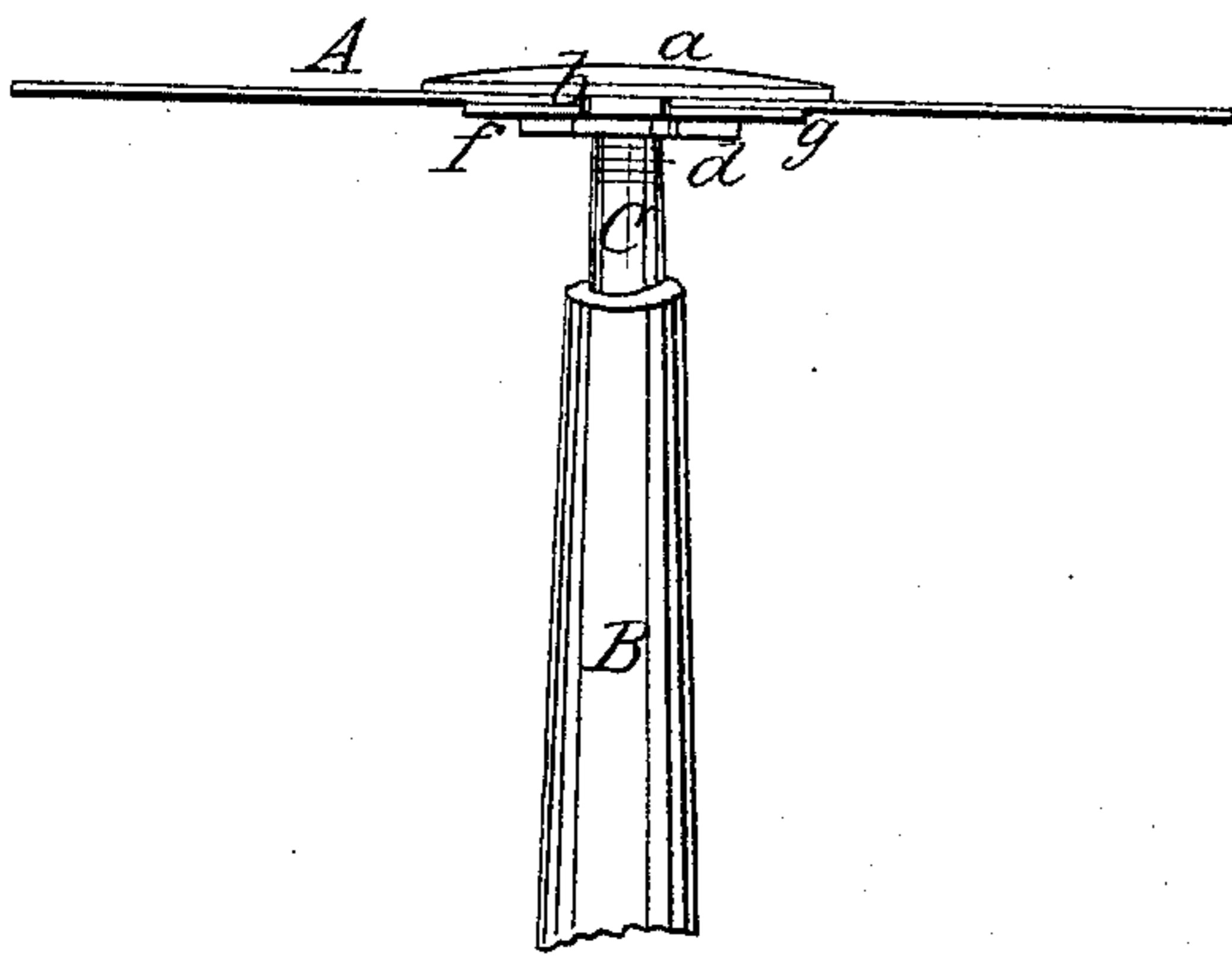


Fig. 3.

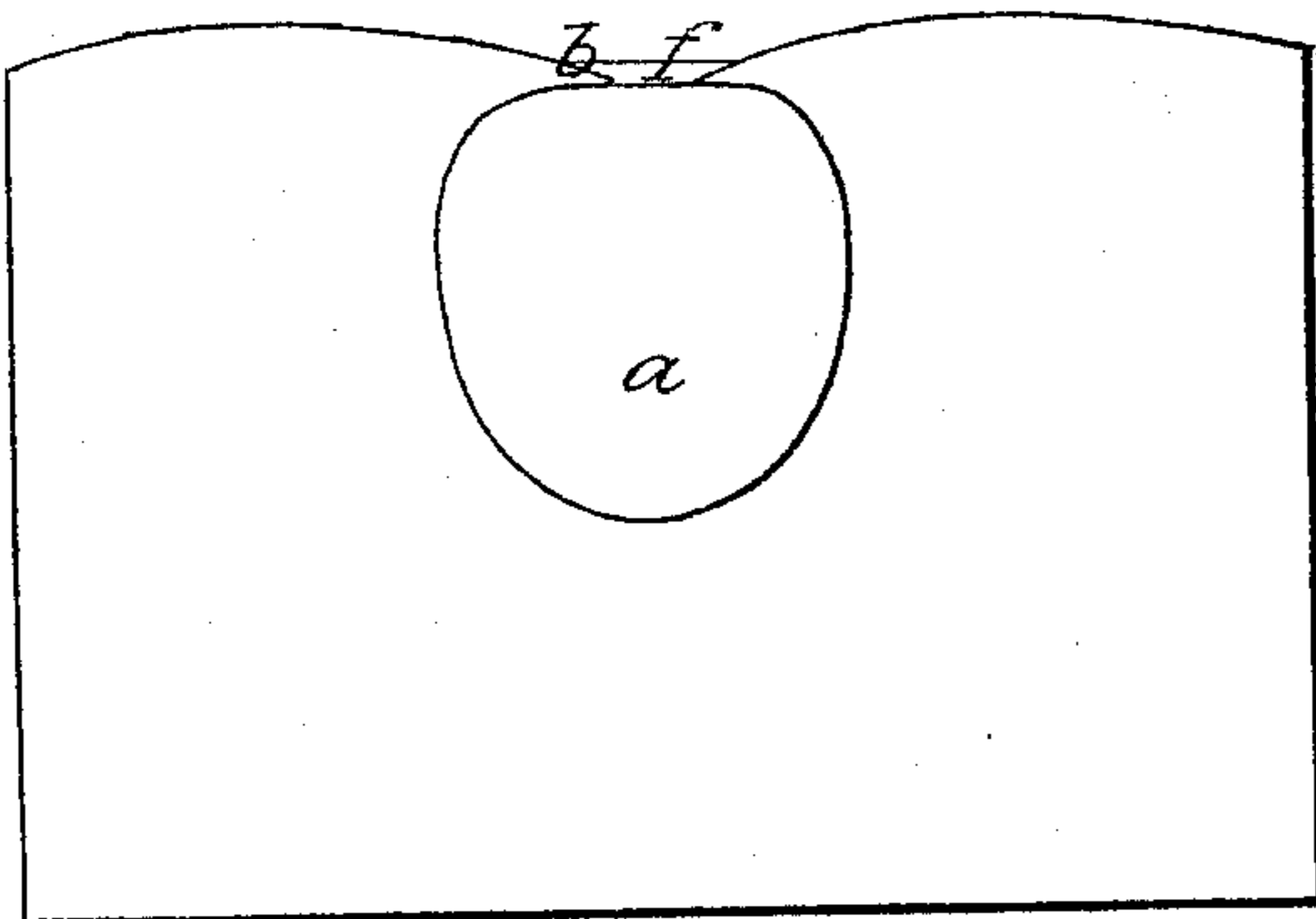
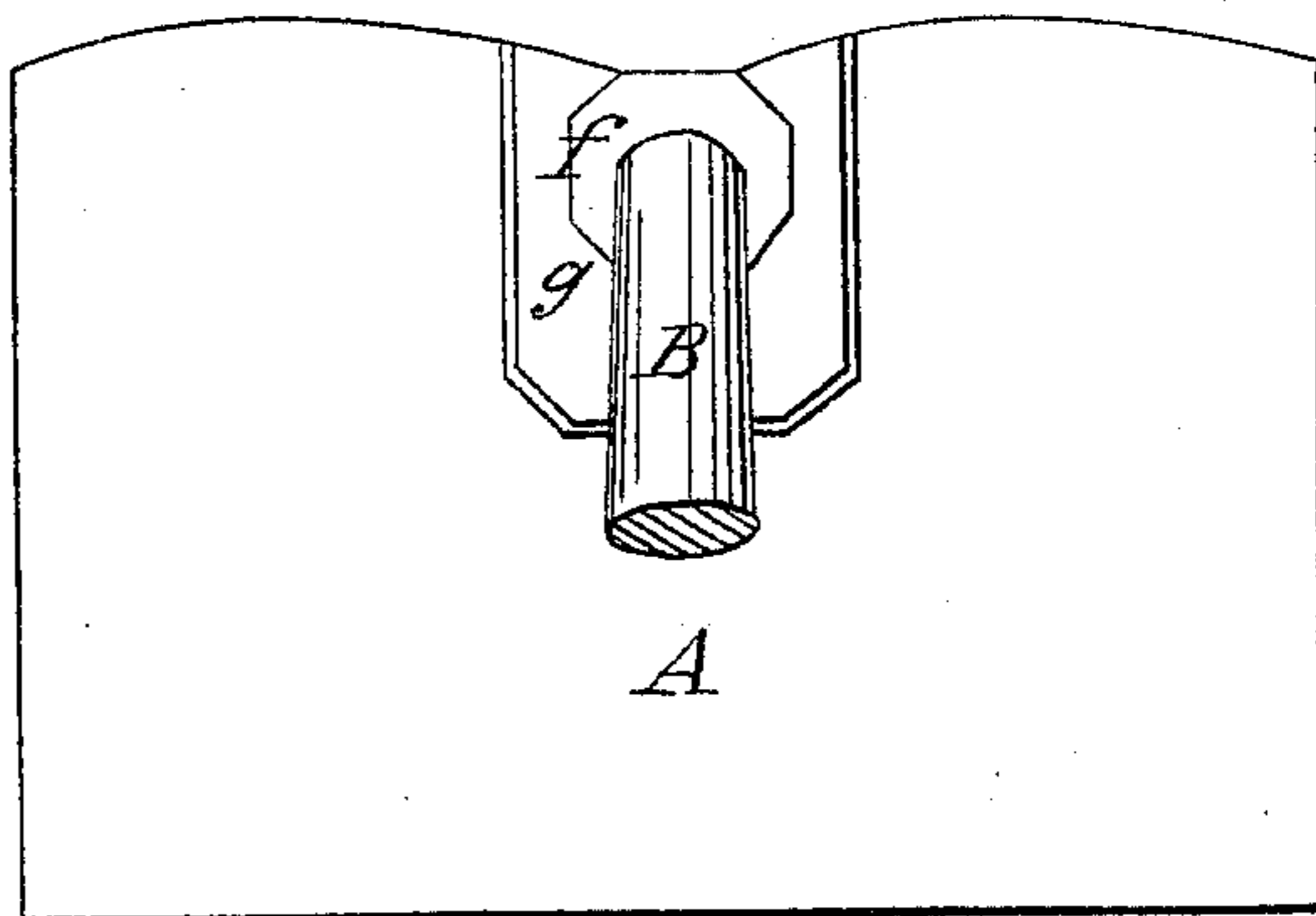


Fig. 2.



UNITED STATES PATENT OFFICE.

JACOB T. SARGENT, OF SUTTON, NEW HAMPSHIRE.

IMPROVEMENT IN GARDEN AND OTHER HOES.

Specification forming part of Letters Patent No. **10,162**, dated October 25, 1853.

To all whom it may concern:

Be it known that I, JACOB T. SARGENT, of Sutton, in the county of Merrimack and State of New Hampshire, have invented a new and useful Improvement in Garden-Hoes; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, letters, figures, and references thereof.

Of the said drawings, Figure 1 denotes a top view, Fig. 2 a rear view, Fig. 3 a front view, and Fig. 4 a vertical central and longitudinal section, of my improved garden-hoe. Fig. 5 is a view of the hoe as separated from the attachment of the handle. Fig. 6 is a side view of the rear bearer or stiffening-plate.

In the said drawings, A represents the blade of the hoe, B the handle, and C the iron or metallic shank by which they are connected. This shank is fixed in the handle in the usual way, and has a thin and broad bearing plate or head, *a*, formed on and making part of it, and made not only to extend down the outside surface of the blade about two inches, but also to extend laterally each way about one inch and a quarter. It also extends upward from the shank about one-half an inch. A recess, *b*, is formed down in the upper portion of the blade and for the reception of the said shank, such recess being formed with parallel sides, and so as to receive a corresponding extension, *c*, from the back of the bearer *a*, such extension being shaped as seen in Fig. 7, which denotes a rear view of the bearer *a*. A male screw, *d*, is cut or made on the shank, and on this screw is placed an octagonal or other proper shaped screw-nut, *f*, which is made to screw against a back bearer or steel stiffening-plate, *g*, that is introduced between it and the blade of the hoe and formed as seen in Fig. 6. Such a stiffener is absolutely necessary to enable the hoe-blade, when the implement is in use, to resist the great strain brought upon it at its junction with the shank. The screw-nut alone will not be sufficient to resist the strain, for it cannot be formed large enough for the purpose without too great an extension of it above the up-

per part of the blade. The nut, however, is to be made of as great a diameter as convenience will admit, in order that it may aid in counteracting the effects of lateral strain on the blade.

When a hoe-blade is thus made and provided with such an attachment for connecting it with the shank of the handle it can easily be removed from the handle should a person at any time be desirous of applying to the handle either a larger or smaller blade or replace one that has been broken. Thus it will be seen that, a farmer or gardener being obliged to keep or procure several hoes, one handle may be made to suffice for several blades of variable sizes, and such handle will not be lost or rendered useless, comparatively speaking, should the blade be broken when in use. This construction of the hoe is of great advantage to the agriculturist in several respects.

I do not claim the employment of a screw and nut for confining two things together; nor do I claim the attachment of the shank and blade of a hoe by means of bearing-plates welded to and forming part of the shank and riveted to the blade; but

What I do claim is—

My improved attachment of the blade and shank, whereby the blade not only can be readily removed from or as readily confined to the shank, but when affixed to it is prevented from breakage where the greatest leverage or strain is brought upon it, meaning to claim the bearing-head *a*, fixed firmly to and making part of the shank, the movable plate or stiffener *g*, or its equivalents, applied to the back of the blade and made separate from the shank, the screw *d* on the shank, the screw-nut *f*, and the recess *b* in the hoe-blade, as combined together and with the shank of the handle and made to operate substantially as specified.

In testimony whereof I have hereto set my signature this 27th day of June, A. D. 1853.

JACOB T. SARGENT.

Witnesses:

ERASTUS WADLEIGH,
ALVA D. COLCORD.