

No. 616,201.

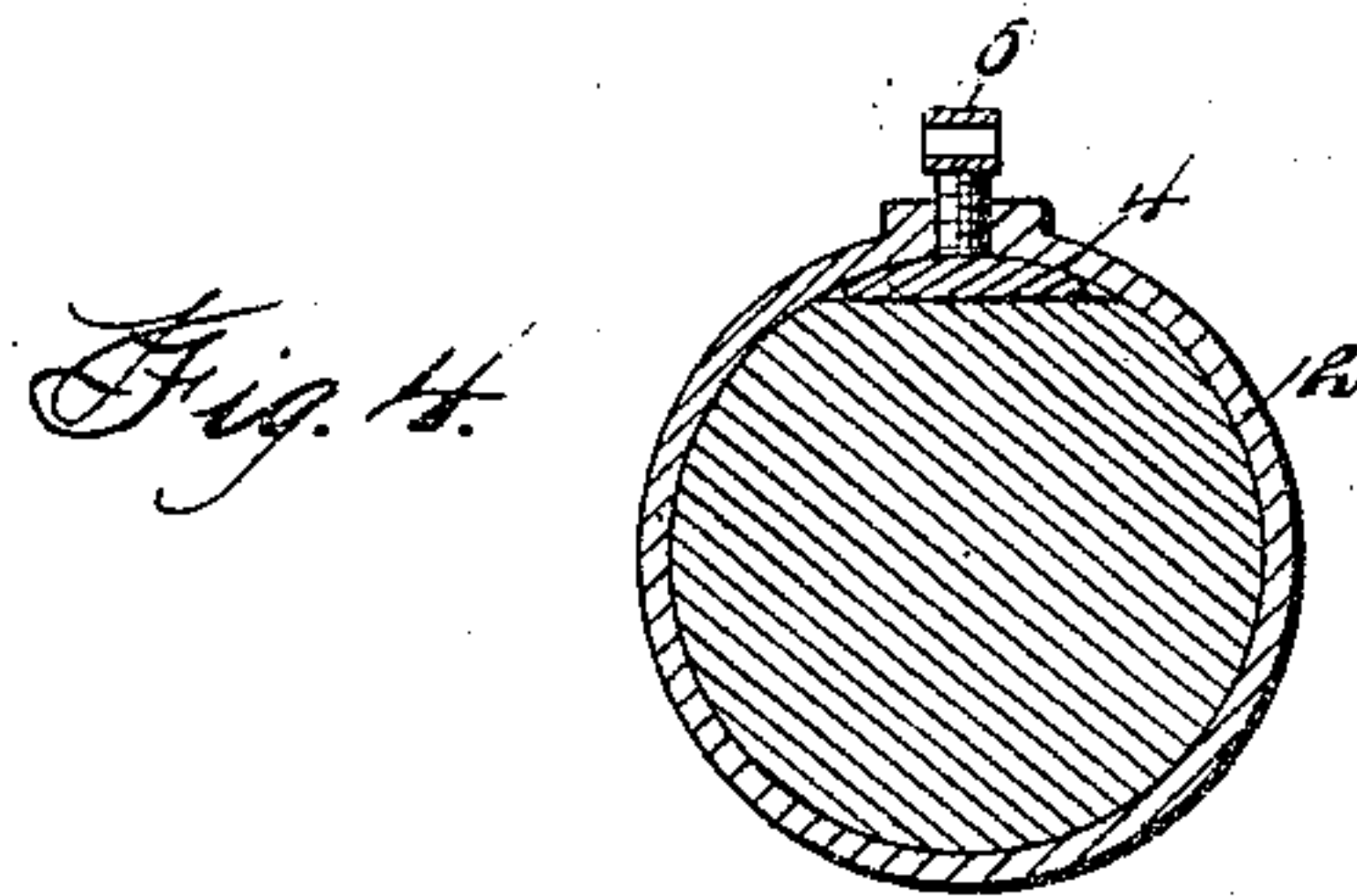
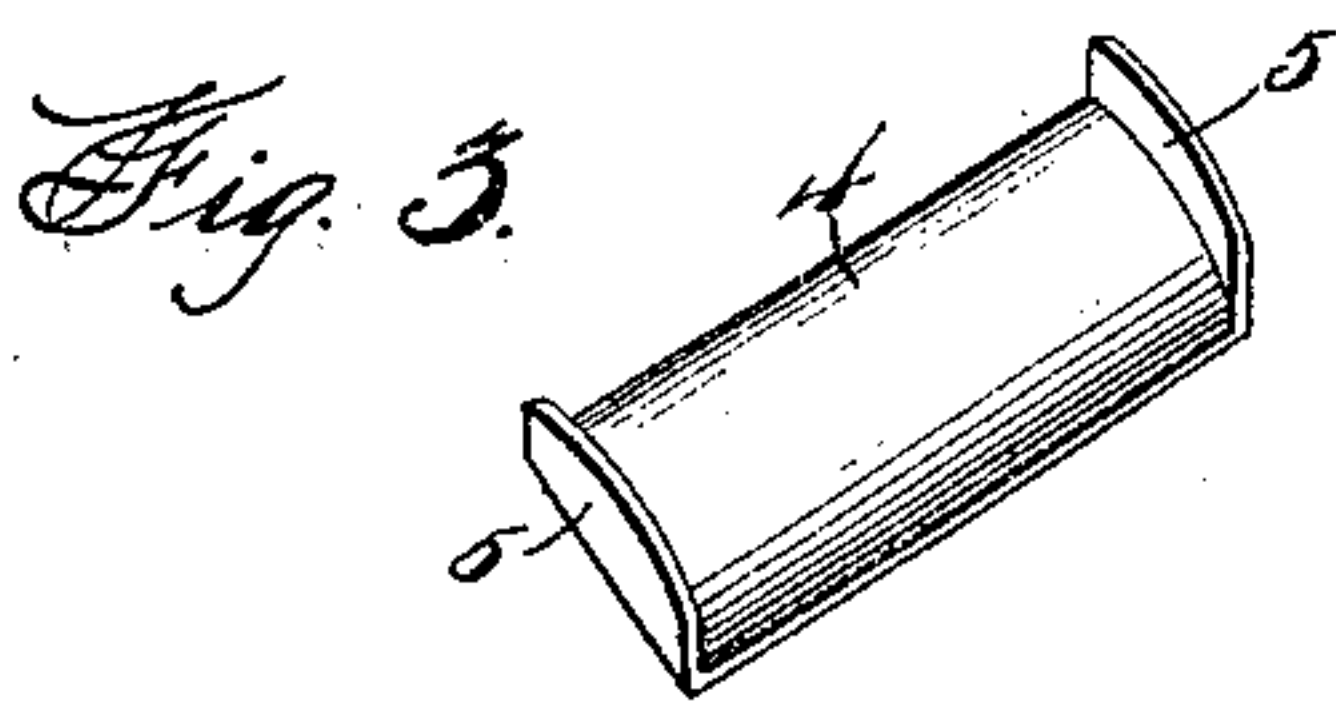
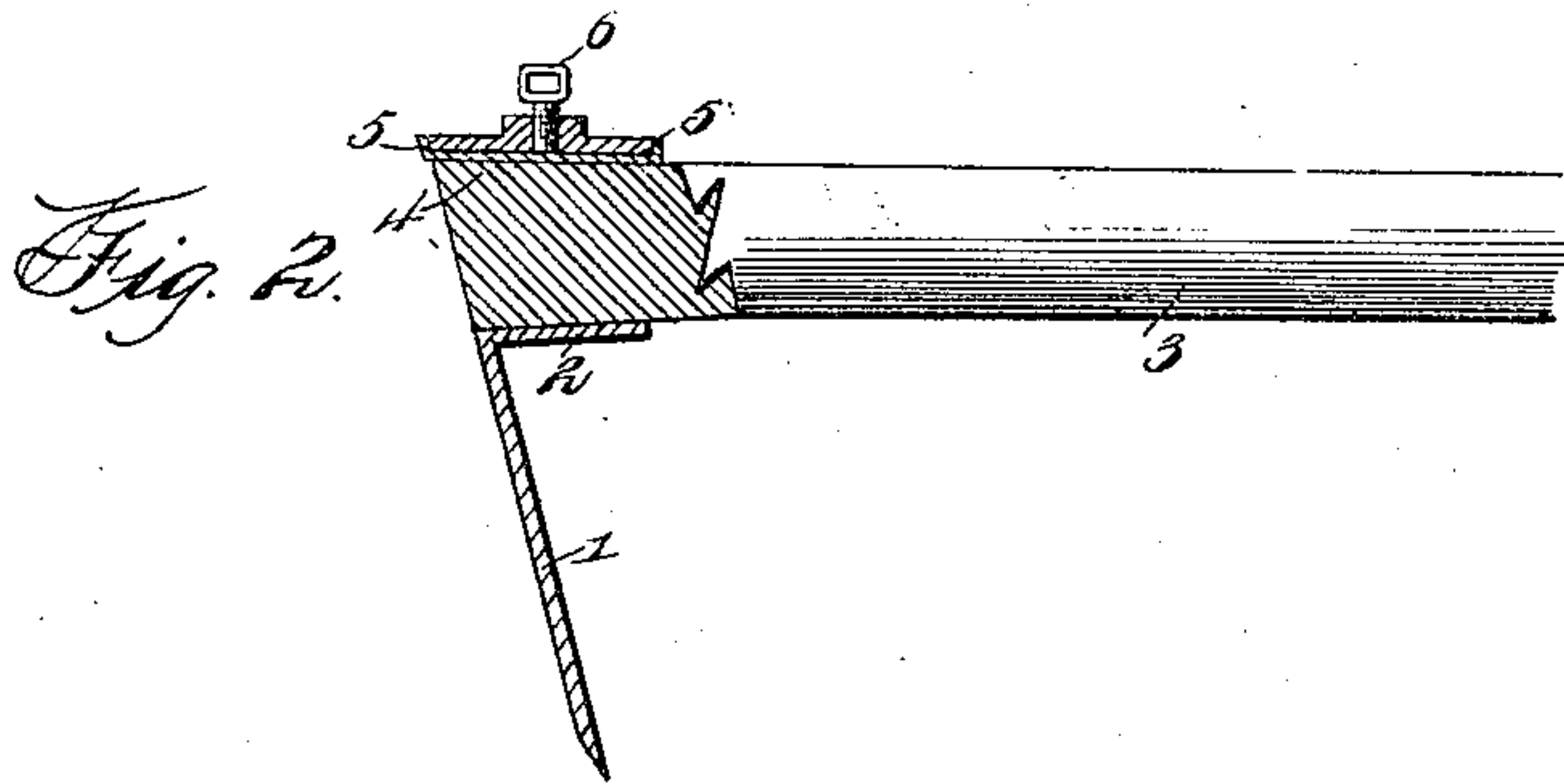
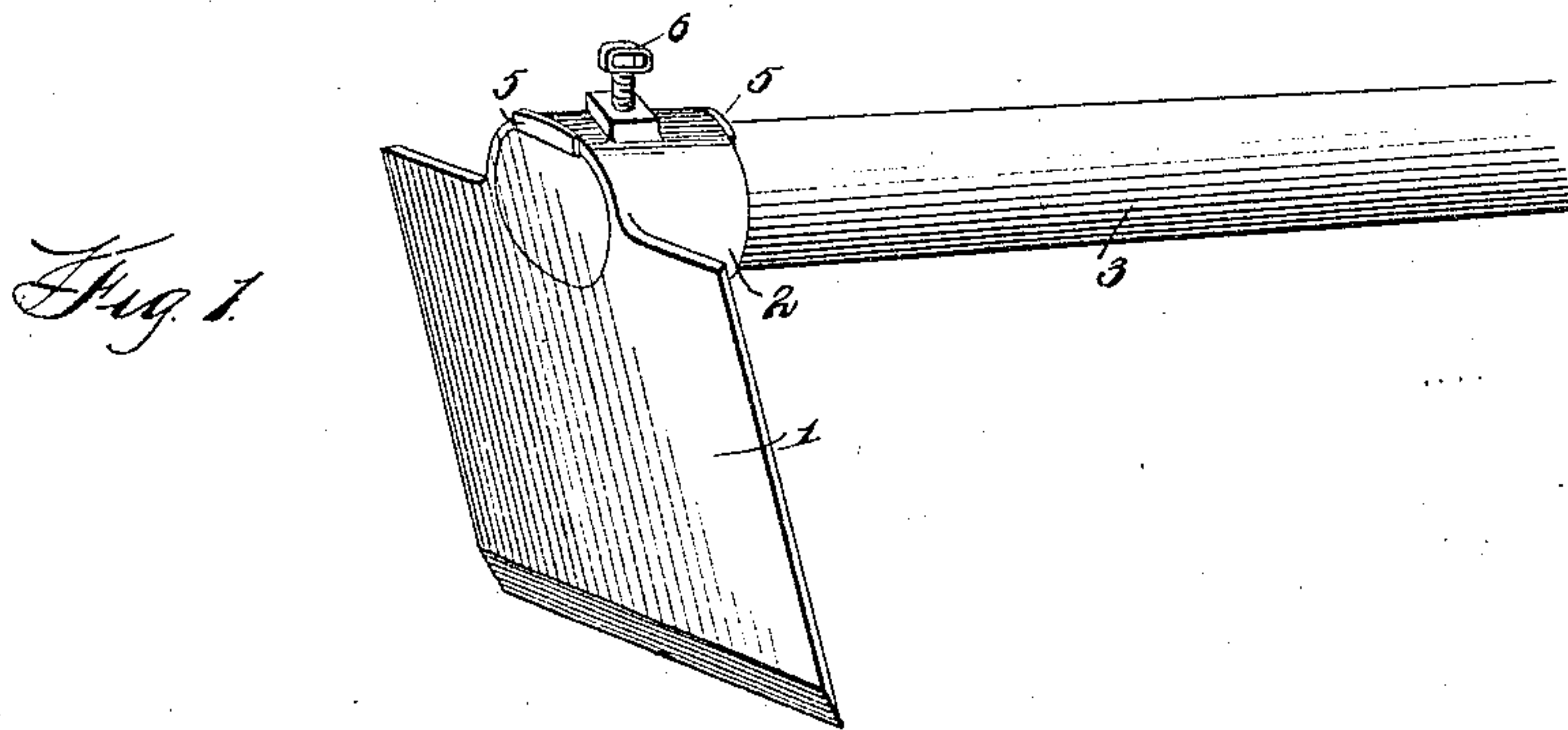
Patented Dec. 20, 1898.

E. O. NORWOOD.

HOE.

(Application filed Dec. 27, 1897.)

(No Model.)



Witnesses

R. H. Shepard
E. O. Norwood

By *his* Attorneys,

C. A. Snow & Co.

Inventor
Edwin O. Norwood

UNITED STATES PATENT OFFICE.

EDWIN OSBERN NORWOOD, OF MACUNE, TEXAS.

HOE.

SPECIFICATION forming part of Letters Patent No. 616,201, dated December 20, 1898.

Application filed December 27, 1897. Serial No. 663,627. (No model.)

To all whom it may concern:

Be it known that I, EDWIN OSBERN NORWOOD, a citizen of the United States, residing at Macune, in the county of San Augustine and State of Texas, have invented a new and useful Hoe, of which the following is a specification.

My invention relates to garden-tools, and particularly to hoes of the various types, with special reference to means whereby a hoe, rake, or other tool-blade is attached to the handle to facilitate detachment when not in use or to facilitate the replacement of a broken handle; and the object in view is to provide a handle-attaching device which does not necessitate a special construction of handle.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings, Figure 1 is a perspective view of a tool of the hoe class having its blade secured to the handle by an attaching device embodying my invention. Fig. 2 is a central sectional view of the same. Fig. 3 is a detail view of the follower or clamp-plate. Fig. 4 is a transverse section of the eye.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a tool-blade, integral with which is formed an open-ended eye 2, slightly tapered toward the rear or from the plane of the blade and arranged at its front end flush with the outer surface of the blade. The handle 3 is preferably tapered slightly toward the grip end for insertion into the eye from the front side of the blade, and extending through the eye is a follower or clamp-plate 4, having upturned or deflected extremities 5 located beyond the extremities of the upper side of the eye in contact therewith to prevent endwise displacement of the plate. Co-operating with this follower or clamp-plate is a set-screw 6, threaded in a suitable opening in the upper side of the eye and impinging terminally upon the plate at an intermediate point to force it into efficient frictional contact with the upper side of the handle. To prevent turning of the handle in the eye; the upper side of the former is preferably flattened slightly, as shown in Fig. 4, the under

or inner surface of the follower or clamp-plate being approximately flat, while the upper or outer surface thereof is convexed to conform to the concave inner surface of the eye.

An advantage of the above-described construction resides in the fact that while both ends of the socket are open to prevent the retention of moisture therein the detachment of the handle can be accomplished with facility and that in addition to being readily displaceable the handle can be firmly secured to the blade to resist any strain liable to be applied to the tool when in use. Furthermore, the slight tapering of the handle and of the eye in which it is fitted prevents the endwise displacement thereof when a drawing strain is applied thereto.

The head of the set-screw 6 is preferably looped to form a rod-seat adapted to be engaged by a suitable rod or bar to facilitate the turning of the set-screw and insure the proper seating of the follower or clamp-plate upon the surface of the handle.

Having described my invention, what I claim is—

The combination of a tool-blade having an open-ended eye, extending rearwardly from the plane of the blade and interiorly tapered toward its rear end, a handle tapered toward its grip end and removably fitted in said eye, the upper side of the handle, within the eye, being flattened, a follower or clamp-plate seated within the eye upon said flattened portion of the handle, said follower exceeding the eye in length and having upturned extremities arranged in contact with the opposite ends of the eye to prevent endwise displacement and allow adjustment of the follower, toward and from the plane of the handle, to take up looseness of the latter in the eye, and a set-screw threaded in a socket in the upper side of the eye and impinging terminally upon the follower at an intermediate point, to maintain it in frictional contact with the handle, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EDWIN OSBERN NORWOOD.

Witnesses:

D. A. McDONALD,

W. C. WADE.