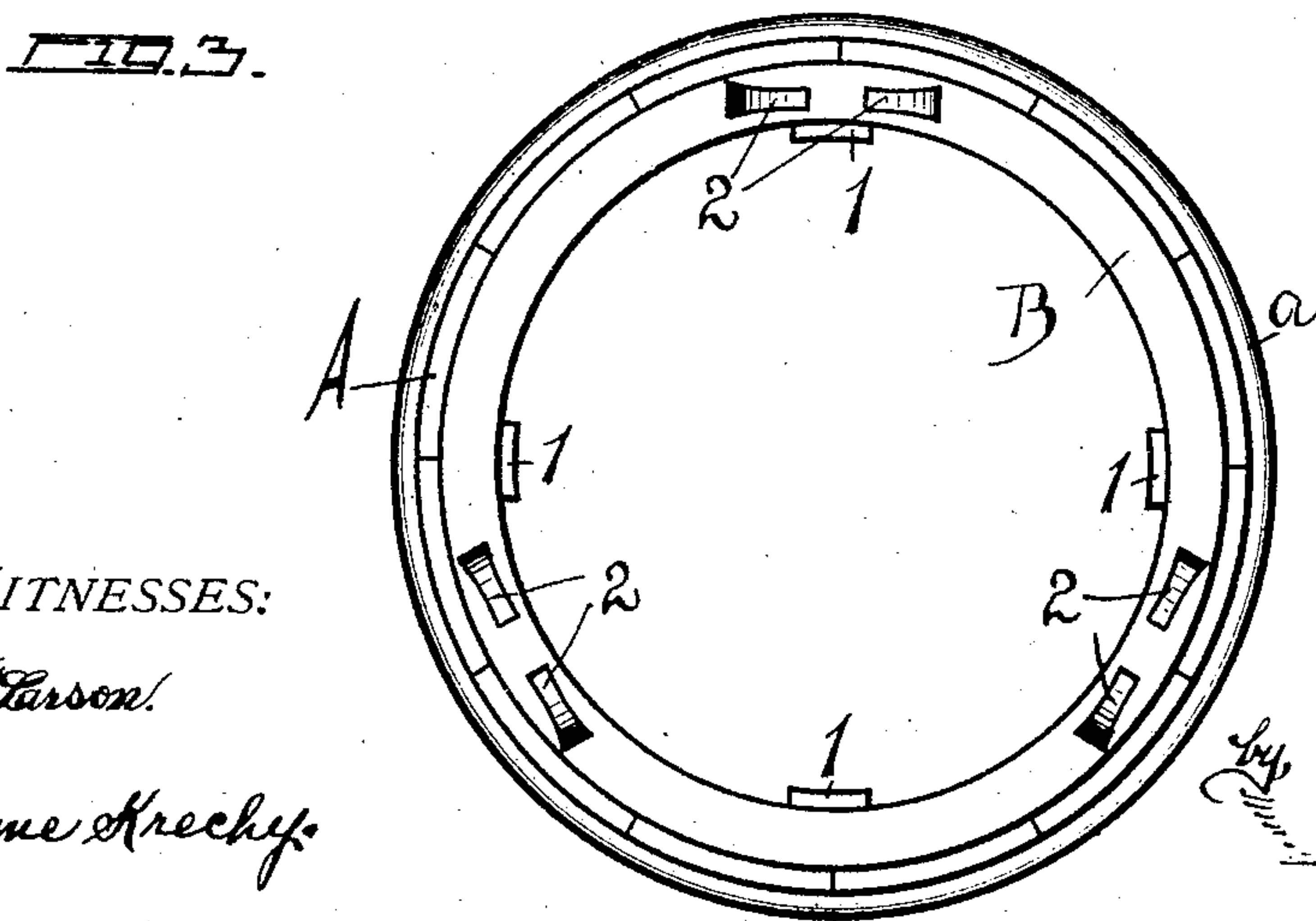
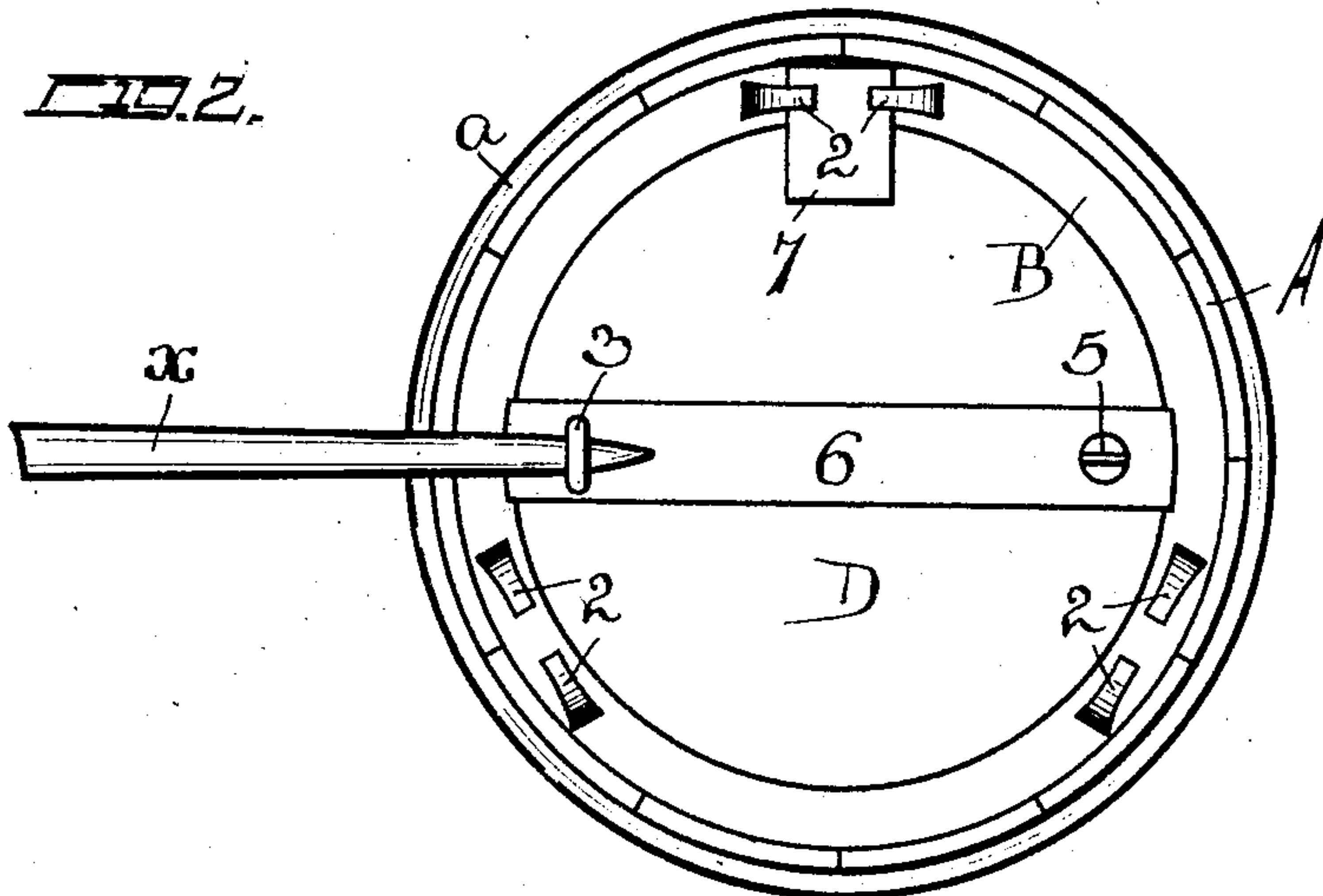
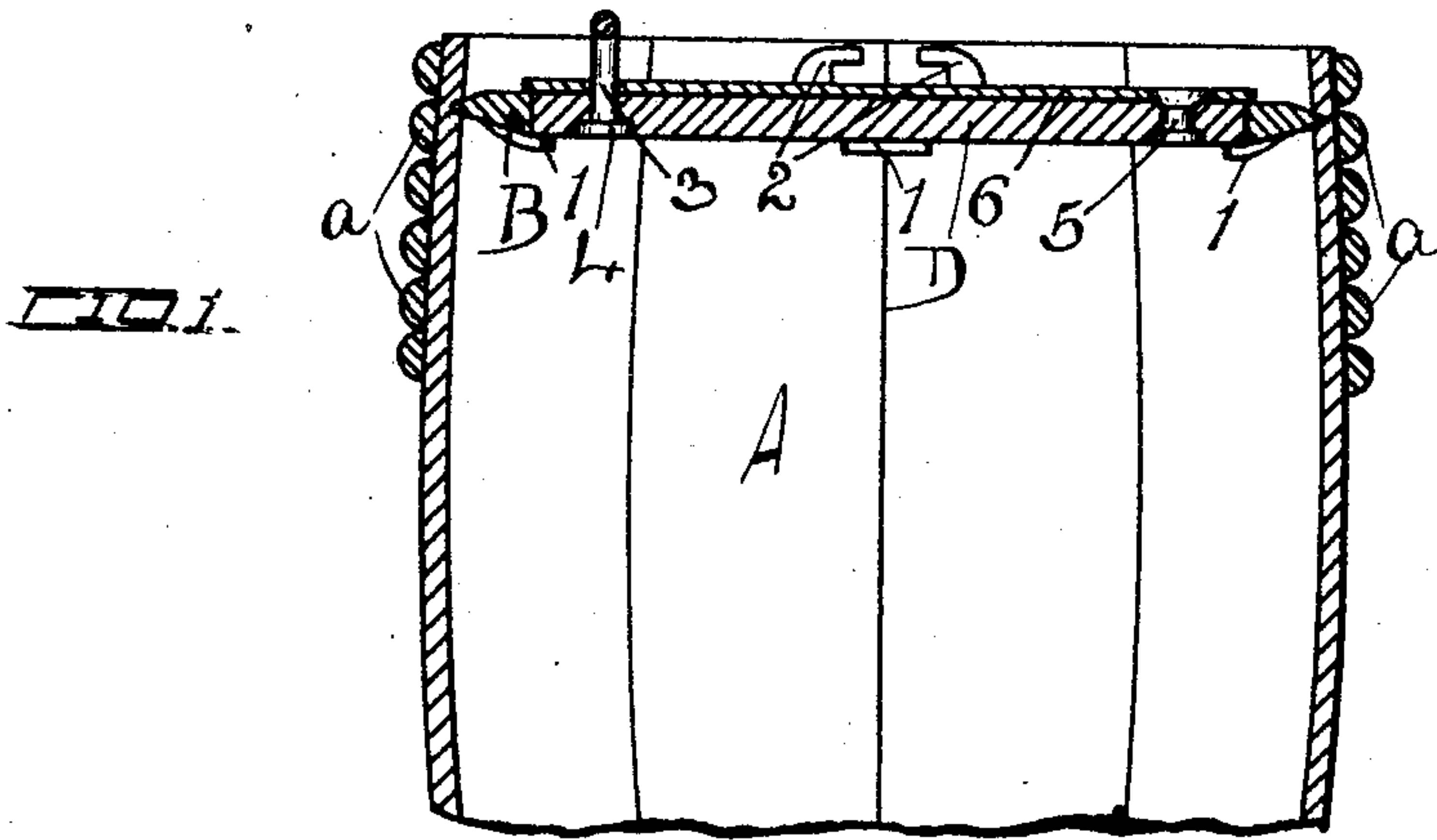


No. 777,887.

PATENTED DEC. 20, 1904.

C. E. FAY & J. H. HILL.
BARREL HEAD FASTENING.
APPLICATION FILED JULY 18, 1903.

NO MODEL.



WITNESSES:

Wm. Larson
Wm. Krech

INVENTORS:

Charles E. Fay
Joseph H. Hill
Wm. W. Sues Attorney,

UNITED STATES PATENT OFFICE.

CHARLES E. FAY AND JOSEPH H. HILL, OF SOUTH OMAHA, NEBRASKA.

BARREL-HEAD FASTENING.

SPECIFICATION forming part of Letters Patent No. 777,887, dated December 20, 1904.

Application filed July 18, 1903. Serial No. 166,197.

To all whom it may concern:

Be it known that we, CHARLES E. FAY, residing at 286 South Twenty-first street, and JOSEPH H. HILL, residing at Thirteenth and W streets, South Omaha, in the county of Douglas and State of Nebraska, have invented certain useful Improvements in Barrel-Head Fastenings; and we do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to a new and novel improvement in barrel-head fastenings.

The object of our invention is to provide an ordinary barrel with a head which may be removed without marring the barrel or destroying the head, as will be described more fully hereinafter.

In the accompanying drawings we have shown in Figure 1 a sectional view of a barrel embodying our invention. Fig. 2 shows a top view, while Fig. 3 shows a top view disclosing the barrel-head removed.

The aim of our invention is to provide a barrel-head fastening. In a great many arts and industries expensive casks and barrels are used to contain manufactures, and where these casks and barrels are made of hard wood—such as oak, for instance—in removing the head the barrel is either marred or damaged or the head is injured and destroyed, and in our present invention our aim is to provide a barrel or cask with a head which may be readily inserted and readily removed in emptying the same without destroying, marring, or injuring the barrel or the head.

In carrying out the object of our invention we provide any ordinary barrel, as A, having the usual hoops *a*, with a chamfered ring B, which ring sets into the barrel and is secured in the manner precisely as is the head ordinarily in constructing a barrel. This ring B is provided with an interior surface slightly cone-shaped, the apex extending downward, so that this cone-shaped surface is adapted to readily receive a circular barrel-head D, having its peripheral edge also slightly cone-

shaped, the edge, however, being of a size so that some little force is required in hammering the head into the ring B. In Fig. 1, for instance, the head D is shown as securely fixed within the ring B.

The ring B at one or more points, as disclosed in Figs. 1 and 2, is provided with the lips 2, extending toward one another, under which lips suitable wedges may be forced in giving additional security to the head D, as shown in Fig. 2. This is found desirable, especially in cases where large barrels and hogsheads are used provided with our improvement.

Now in the use of a barrel provided with one of our removable heads the operator would pack the materials within the barrel up to a suitable height and then insert the head, which head D would be of oak or any other suitable material and be dry. Now after the head has been inserted the barrel would be placed upon its side, when the liquid or semiliquid within the barrel would promptly swell the head D, causing an absolute water-tight union between the ring B and head D. After the head D has become soaked it is impossible to remove the same out of the ring B without the use of a lever, as shown at *x*, which would be inserted into the staple 3, passing through the head D, and a metallic strap 6, used in giving strength to the head. Considerable force is required to displace the head after the same has become moist, and it is found that no jarring, dropping, or knocking of the cask or barrel incidental to transportation is sufficient to displace the head, which, however, is merely held within the ring under frictional contact by virtue of the head having become expanded owing to the liquid within the receptacle. The metallic strap 6 is further secured by means of a suitable rivet 5, and in order to prevent an operator pounding down the lids too far projecting lips 1 are provided, which act as guides and stops for the lid. These rings may be secured to any cask or barrel, large or small, and so increase the life of the receptacle in that the head may be repeatedly inserted or removed without marring or destroying the same.

Having thus described our said invention,

what we claim as new, and desire to secure by United States Letters Patent, is—

In a barrel-head fastening, the combination with an annular member provided with an approximately cone-shaped seating, said annular member being secured to one end of the barrel, supporting-lugs projecting from the lower edge of said annular member, a circular barrel-head adjusted to fit into the seating of said annular member, locking-lugs secured to the upper edge of said annular member,

and locking-plates adapted to fit into said locking-lugs to force said barrel-head into engagement with said annular member, and upon aforesaid supporting-lugs. 15

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES E. FAY.
JOSEPH H. HILL.

Witnesses:

A. H. MUNLOCK,
JOSEPH H. KOPIETZ.