

S. Macferran.

Cotton Bale Tie.

N^o 110,255.

Patented Dec. 20, 1870.

Fig. 1.

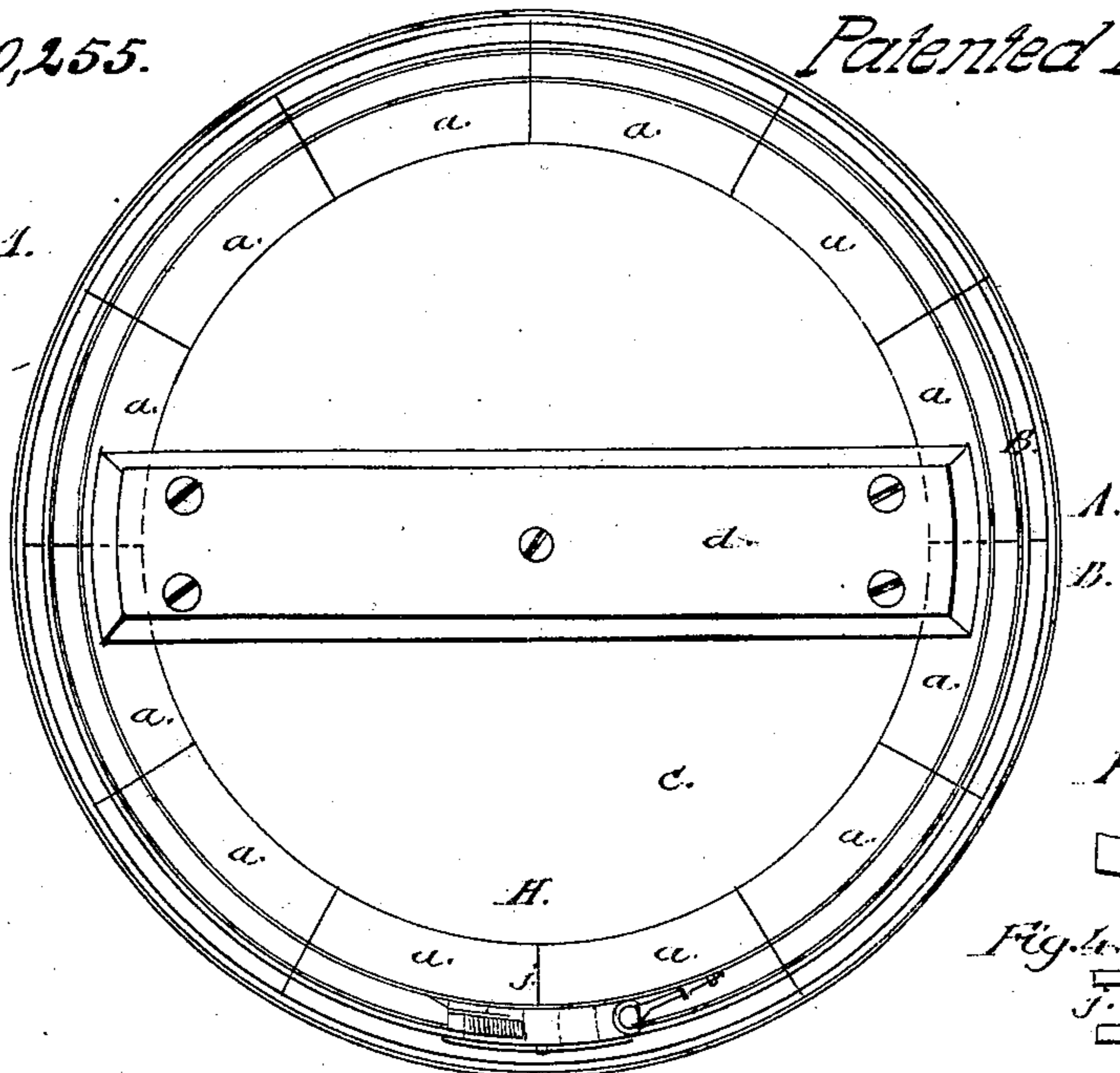
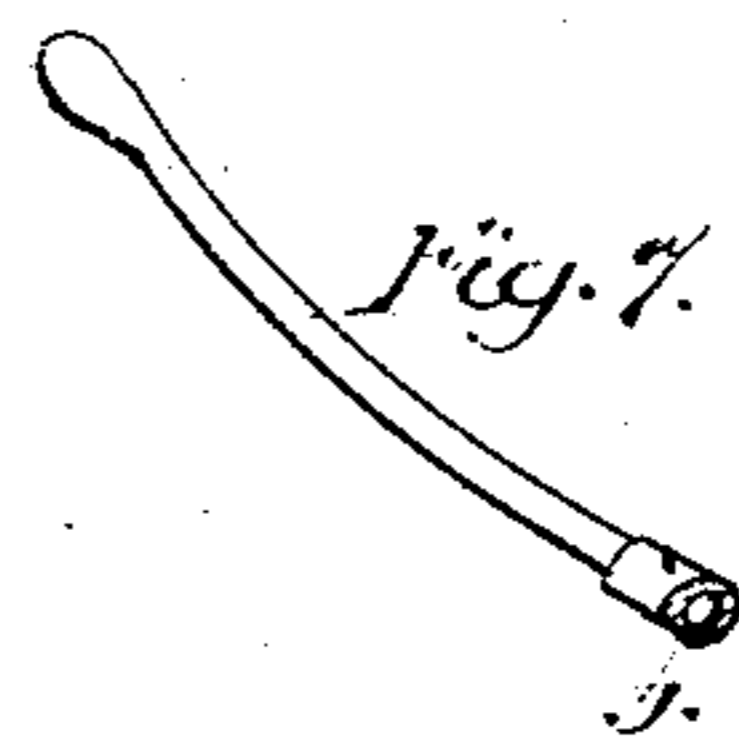
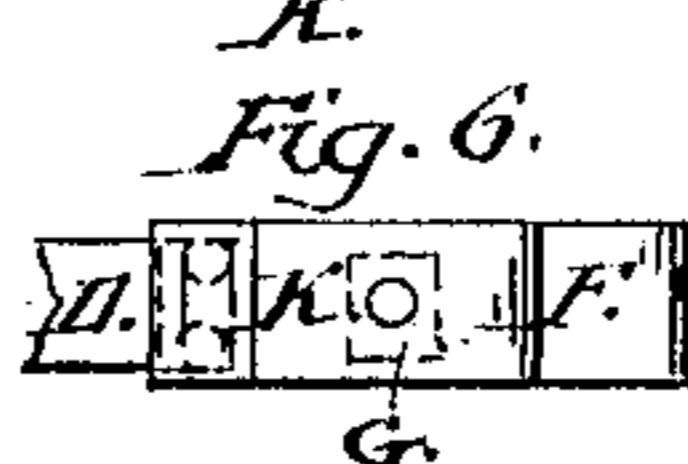
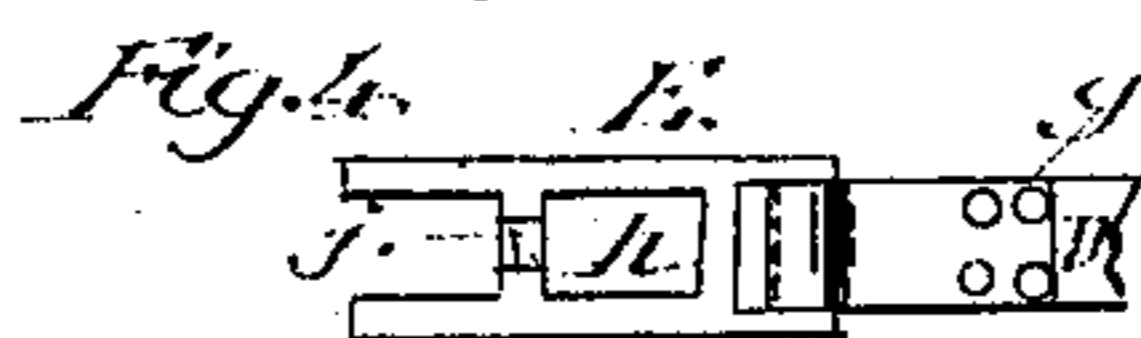
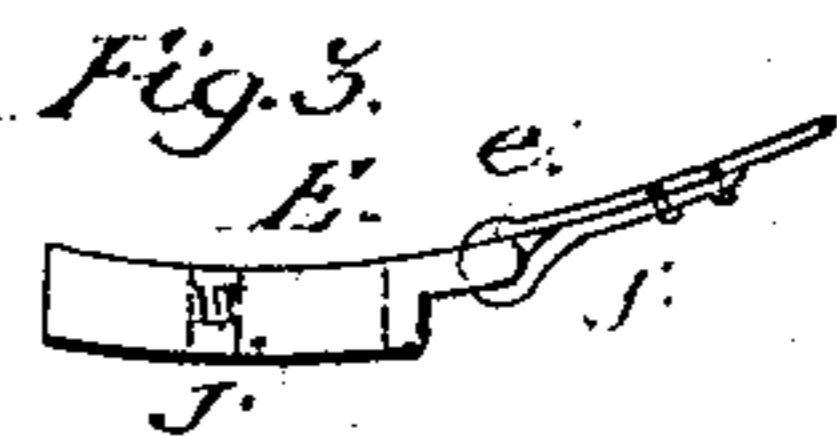
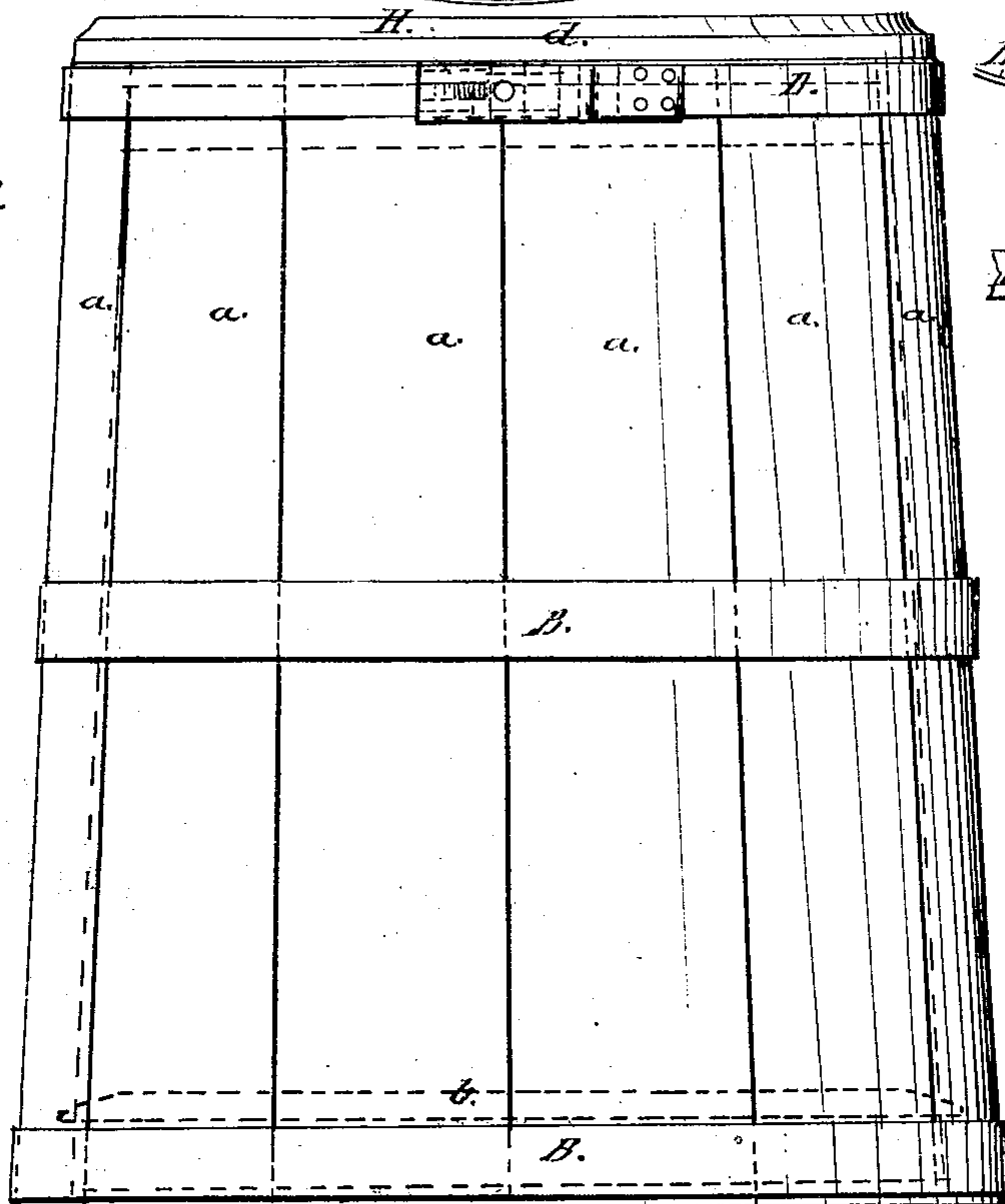


Fig. 2.



Witnesses:

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SAMUEL MACFERRAN, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 110,255, dated December 20, 1870.

IMPROVEMENT IN TIGHTENING-STRAPS FOR BARRELS.

The Schedule referred to in these Letters Patent and making part of the same.

I, SAMUEL MACFERRAN, of the city of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Tightening-Strap for Removable Heads of Vessels, of which the following is a specification.

The nature of my invention consists in providing one end of the strap with a link, and the other end with a stud, which projects through said link, and which is movable therein by a screw that is protected by a shield, so as to prevent the same being turned by an ordinary wrench or key, the said shield projecting over the link to prevent the disengagement of the ends of the strap when removed from the vessel, as hereinafter described.

To enable others skilled in the art to which my improvement appertains to make and use my invention, I will now give a detailed description thereof.

In the accompanying drawing which makes a part of this specification—

Figure 1 is a plan of the vessel with the improvement attached.

Figure 2 is a side elevation of the same.

Figures 3 and 4 are an edge and face views of the link E.

Figures 5 and 6 are like views of the plate F, stud G, and shield K in connection.

Figure 7 is a perspective view of the wrench J.

Like letters in all the figures indicate the same parts.

A is a vessel, suitable for holding either liquids or solids.

The staves *a* and bottom *b* are constructed in the usual manner, and are held together by means of the permanent hoops B B, situated at the middle and at the lower end of the vessel.

C is a removable head, which is provided with a batten, *d*, for stiffening it and holding it in place until the staves *a* are tightened at top, the end of the batten projecting over the edges of the head C and resting upon the ends of the staves, as represented in the drawing.

The staves are tightened at their upper end, after the head C is put in place, by means of the claspings-strap D.

The link E is connected to one end of the strap D by means of the cross-bar *e* of the link, and the loop *f*, formed by bending the end of the strap.

The loop is fastened by means of rivets *g*.

To the other end of the strap is riveted the plate F, from which projects the stud G, which slides freely in the slot *h* of the link E in the loosening and tightening of the strap.

H is a tightening-screw, which passes through a female-screw in the cross-bar *j* of the link E, and bears against the stud G of the plate F when screwed forward, whereby the ends of the strap are drawn toward each other, thus tightening the staves *a* at their upper ends, and confining them upon the periphery of the removable head C.

The screw H is operated by the socket-wrench J, seen in fig. 1.

In order to prevent the screw from being operated by an ordinary wrench, so as to give greater security to the contents of the vessel, and also to prevent the screw being battered in the handling and shipment of the vessel, I confine the shield K on the outer end of the stud G, as clearly shown in figs. 5 and 6. The link E is shown in detail in figs. 3 and 4.

The shield K is made wide enough to cover the link E, so as to keep the same from slipping off the post when the screw is loosened.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The shield K, arranged and operating, in relation to the tightening-screw H, substantially in the manner and for the purpose above described.

2. The combination of the shield K with the stud G, whereby the ends of the strap D are held in position, substantially as above set forth.

In testimony that the above is my invention I have hereunto set my hand and seal this day of May, 1870.

SAMUEL MACFERRAN. [L. S.]

Witnesses:

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