

(No Model.)

E. J. BROOKS.
METALLIC SEAL.

No. 294,577.

Patented Mar. 4, 1884.

Fig. 1.

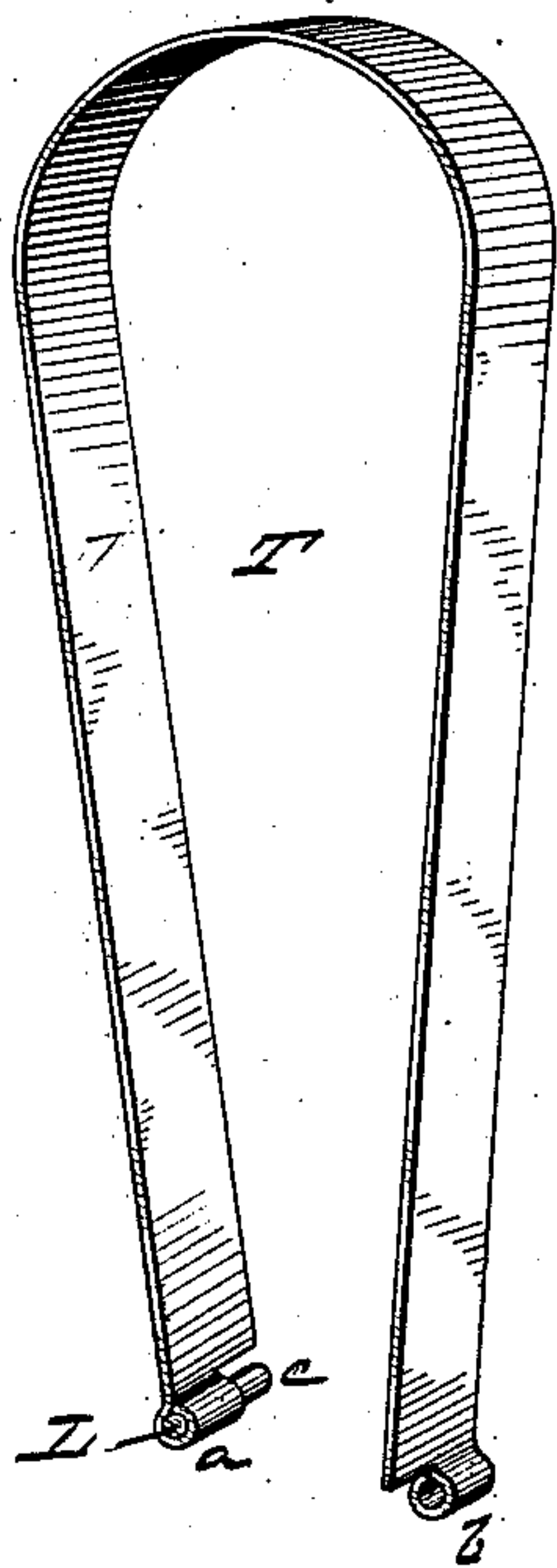


Fig. 2.

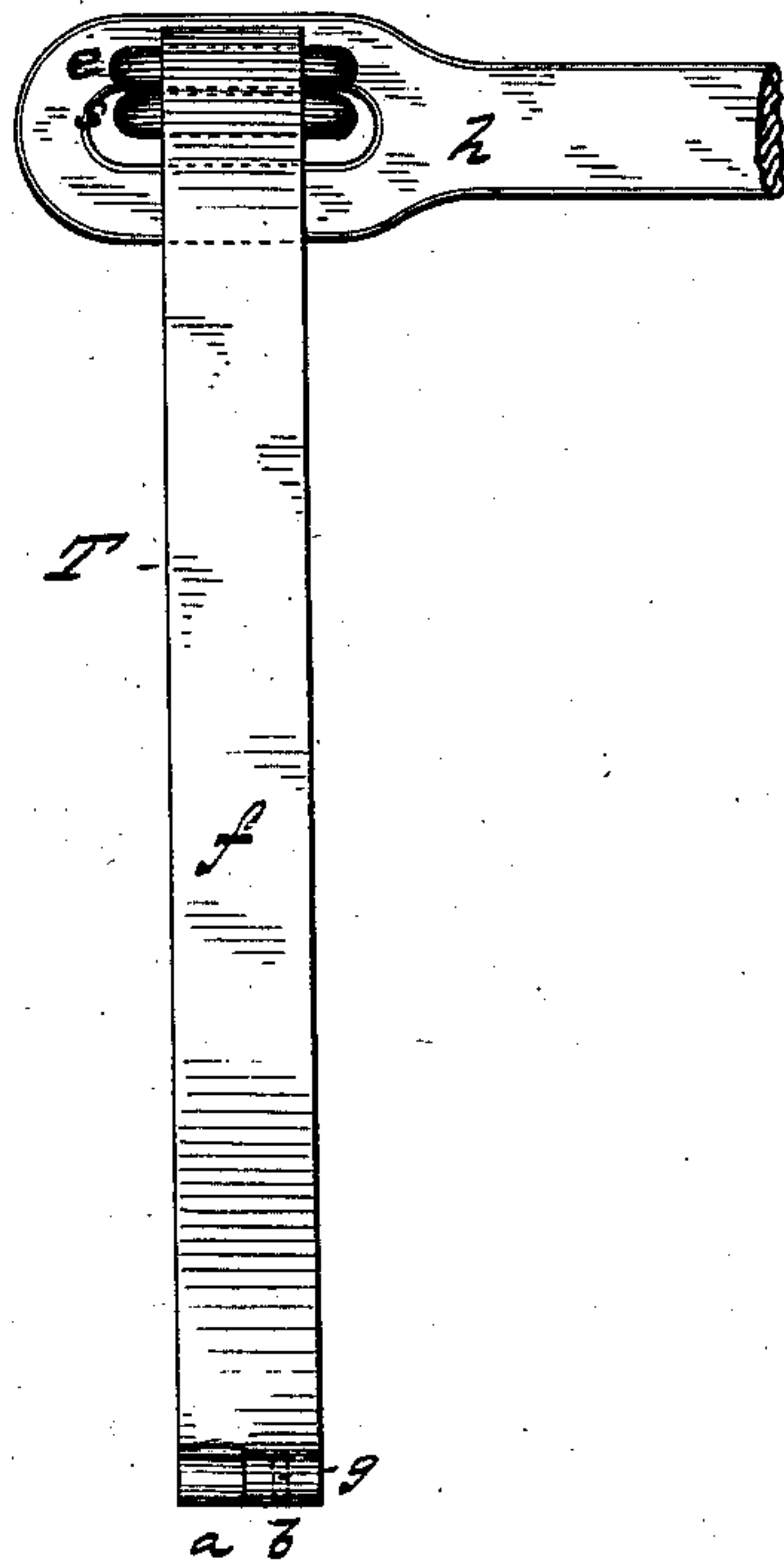


Fig. 3^x

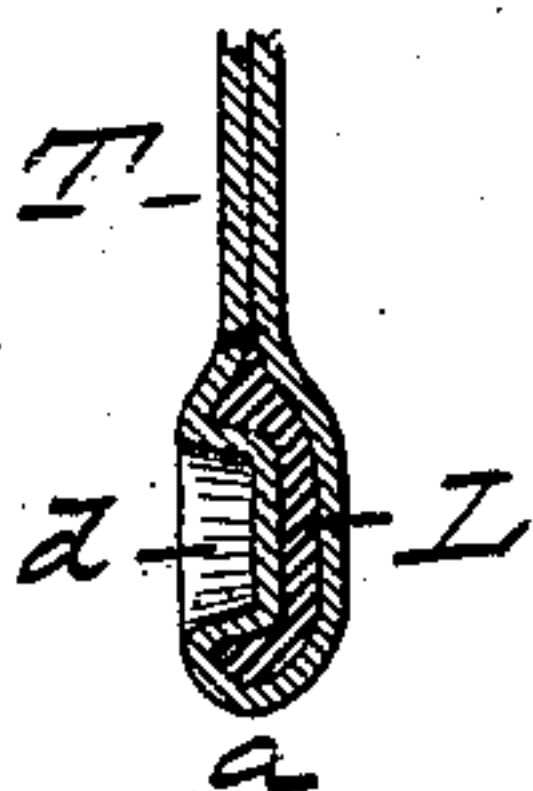


Fig. 3.

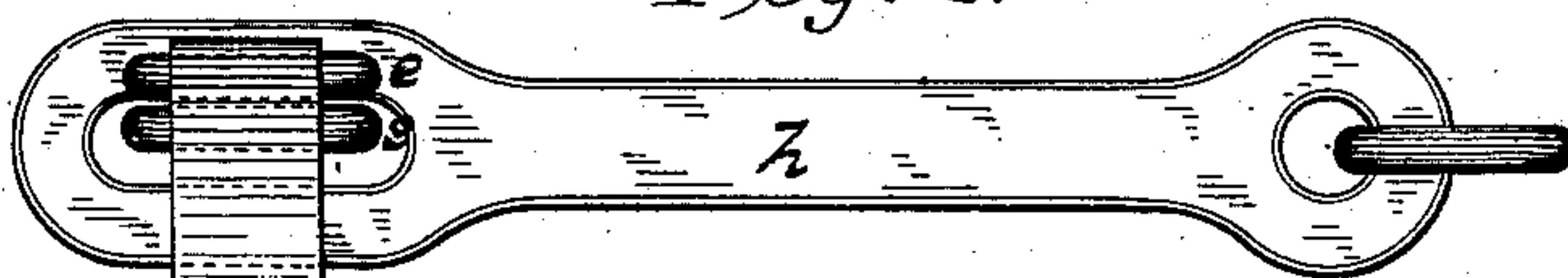


Fig. 4.



Fig. 3^y.



Fig. 6.

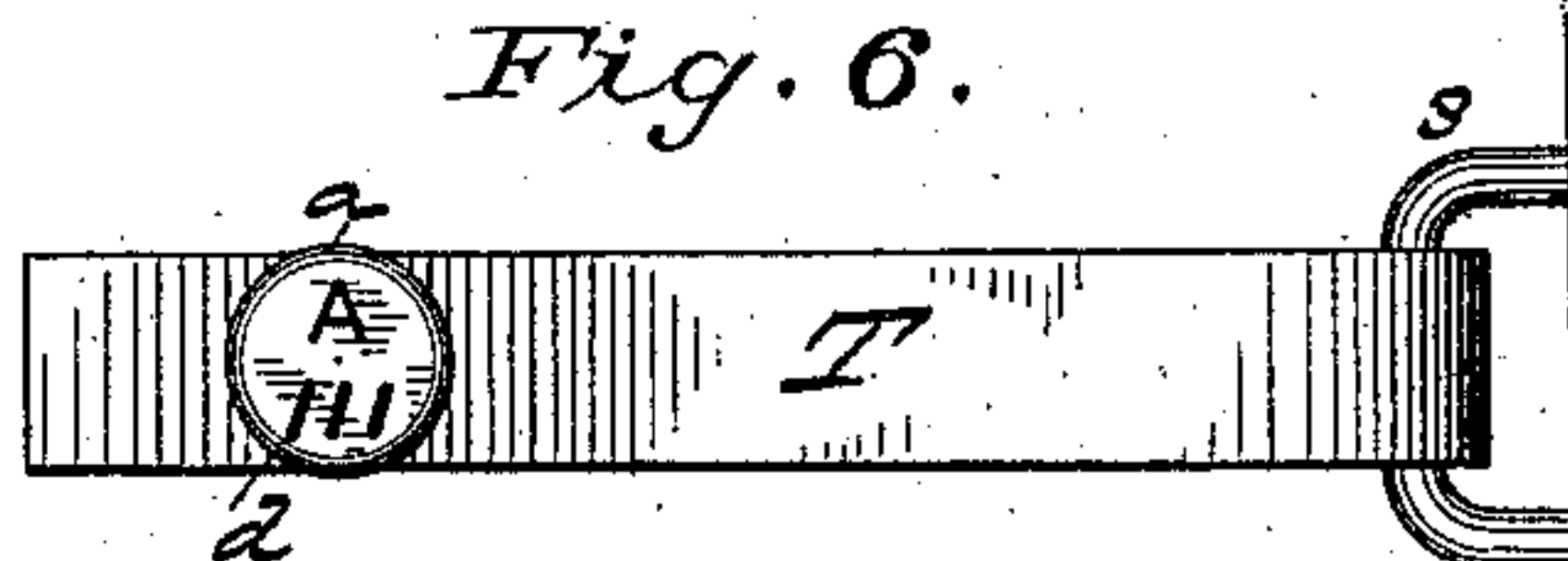


Fig. 5.

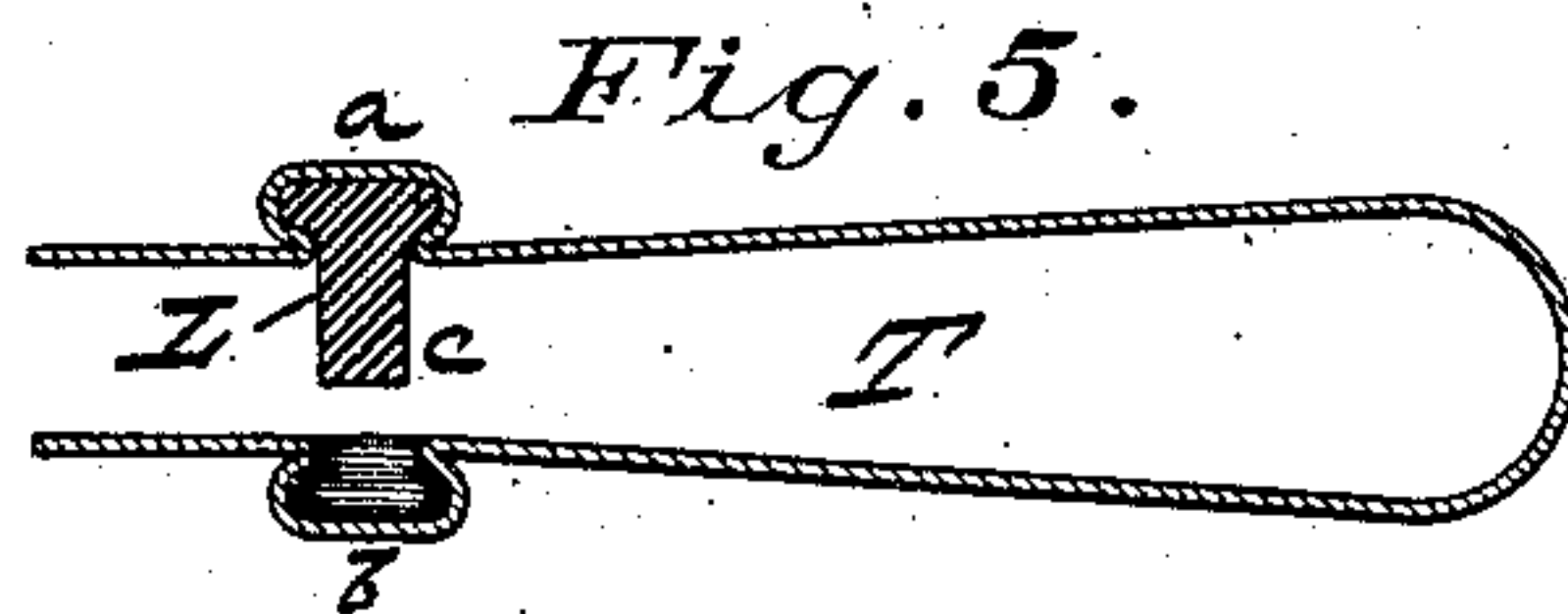
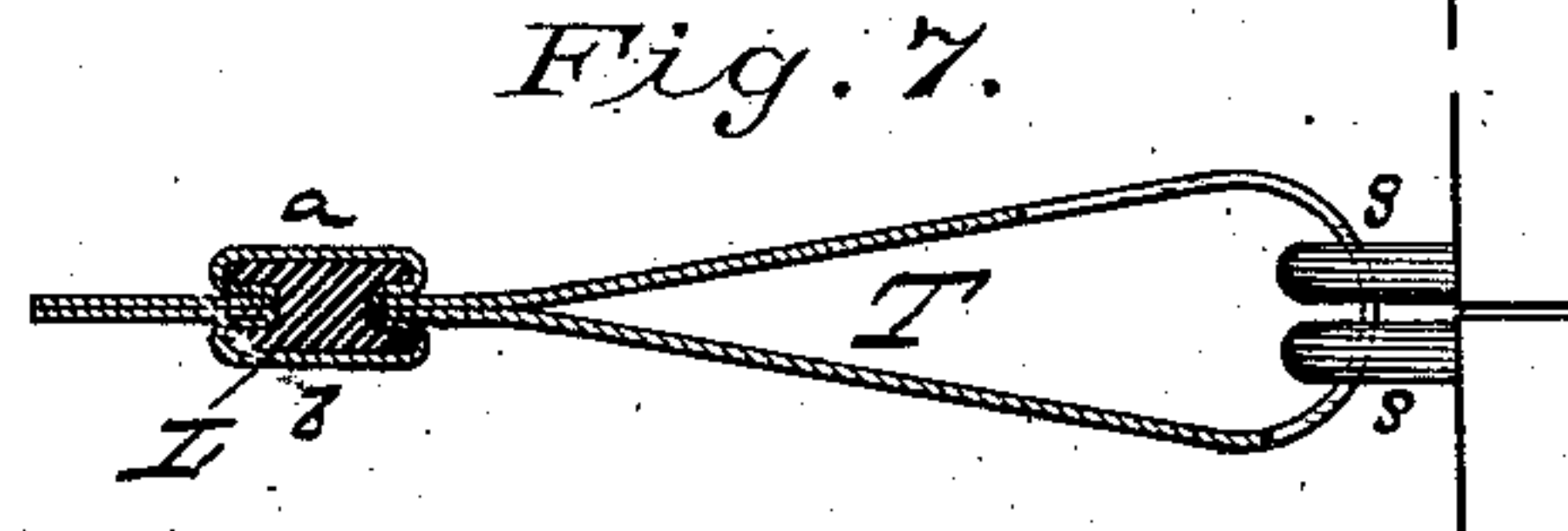


Fig. 7.



WITNESSES

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METALLIC SEAL.

SPECIFICATION forming part of Letters Patent No. 294,577, dated March 4, 1884.

Application filed January 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. BROOKS, a citizen of the United States, residing at East Orange, in the State of New Jersey, have invented a new and useful Improvement in Metallic Seals, of which the following is a specification.

This invention relates to improvements in those "metallic seals" composed partly of soft metal, lead being commonly used, and partly of "tin" or other sheet metal. Various forms of these seals are shown in United States Patents already granted for my inventions—viz., No. 178,722, dated June 13, 1876; No. 209,008, dated October 15, 1878; No. 246,068, dated August 23, 1881; No. 254,601, dated March 7, 1882; No. 258,278, dated May 23, 1882; No. 260,279, dated June 27, 1882, and No. 286,775, dated October 16, 1883.

My present invention is more particularly in continuation of my series of inventions relating to what I term "cast-in" seals. A seal of this description is shown in said Patent No. 178,722 at Fig. 21, and the advantages of the peculiarity are set forth in said Patents No. 246,068, No. 260,279, and No. 286,775, which relate exclusively to "lead-and-tin" seals of this cast-in class.

This invention consists in certain novel features of construction and a peculiar combination of parts, hereinafter described and claimed; having objects as follows, to wit: first, to insure pressing each seal sufficiently to render the same secure against undetectable violation, and to afford in an easily-pressed seal composed in part of soft metal the advantages of permanent impressions or indented distinguishing-marks in the relatively hard sheet metal; secondly, to adapt the sheet metal part of such a seal to be readily formed by bending; and, thirdly, to furnish an inexpensive and secure cast-in seal of novel or peculiar shape, adapting it to be readily distinguished from those now in use, the construction being otherwise advantageous, as hereinafter more fully set forth.

A sheet of drawings accompanies this specification as part thereof. Figure 1 of these drawings is a perspective view of an unpressed and "open" seal illustrating this invention. Fig. 2 is an elevation of the same as applied to

a hasp and staple and "closed" ready for pressing. Fig. 3 is a like elevation or face view, showing the seal pressed. Figs. 3^x and 3^y represent magnified sections on the lines *x x* and *y y*, Fig. 3, respectively. Figs. 4 and 5 are respectively a face view and a longitudinal section of another seal open, illustrating a modification of the same invention; and Figs. 6 and 7 are respectively a face view and a longitudinal section of the same applied to a pair of staples and pressed.

Like letters of reference indicate corresponding parts in the several figures.

In either form my improved seal is composed of a sheet-metal strip, T, preferably of tin or tin-plate, and hereinafter described as of tin, having receptacles *a b* formed in its respective ends, and a soft-metal part, L, preferably leaden, and hereinafter described as of lead, cast fast in said receptacle *a*, with one end protruding, as at *c*, in suitable shape to enter, and to a sufficient extent to fill, said receptacle *b* when the seal is applied and pressed; and, in either case, the seal would leave the factory "straight," or simply "bent" to horseshoe shape, as shown in Figs. 1, 4, and 5, with its parts permanently united by casting in the leaden part, as aforesaid. After applying the seal to a hasp, *h*, and staple *s*, Figs. 2 and 3, or a pair of staples, *s s*, Figs. 6 and 7, or any car-door fastening, box-fastening, or the like, in a customary or approved way, and "closing" the seal by inserting the protruding end *c* of the leaden part in said receptacle *b*, as illustrated by Fig. 2, the seal is finally pressed or stamped, as illustrated by Figs. 3, 3^x, 3^y, 4, and 7, so as to flatten said receptacles *a b* more or less, and so distort said end *c* of the leaden part as to preclude its withdrawal without such violence to the parts as would insure detection, the sheet-metal faces of said receptacles *a b* receiving at the same time the press-mark indentations or sealing-impressions *d*. To make these necessary impressions even faintly in the flexible tin involves sufficient pressure by means of the seal-press to insure distorting the relatively soft lead to a sufficient extent to prevent separating the ends of the seal without detectable violence, while faint press-marks would be just grounds for suspicion of the

sealer as in conclusion with thieves; and when the seal is properly pressed, as it can readily be with moderate force, being in part of lead, the highly-desirable permanent press-marks of sheet-metal seals are obtained, while the lead facilitates sinking them deeply, so as to render them distinct and unmistakable, and at the same time the parts are inseparably interlocked in the most effective manner, as shown in Figs 3^x, 3^y, and 7.

In that form represented by Figs. 1 to 3^x, inclusive, the strip T is provided with bent-up tubular receptacles adapted to be most readily formed; and the seal possesses, further, a peculiar distinctive shape, as aforesaid—to wit, that of a “hinge” with axis transverse to the strip—said protruding end *c* of the leaden part L entering said receptacle *b*, in preparing the seal for the press, as the pintle of a common loose hinge enters its socket. This construction, besides the distinctive hinge-form which results, is advantageous, in that it guards against injury of the soft leaden part L in flattening the bow of the tin strip T more or less before the seal is pressed, the unpressed seal working freely as a hinge. It also affords a large extent of unbroken face, *f*, to bear any desired lettering, or other printed, stenciled, or embossed marks—such as initials of a railroad, the number of the seal, or the like—as shown in several of my previous patents aforesaid. To render this form of seal more safe against insecurity when lightly pressed, or to provide for simply pressing or flattening it without indenting the sheet metal, the receptacle *b*, which receives the end *c* of the leaden part, may be provided in course of manufacture with a cut or recess, as indicated by dotted lines at *g*, Fig. 2, to be filled by the lead at the pressing operation.

In the modification illustrated by Figs. 4 to 7, inclusive, the receptacles *a b* are die-formed, corresponding in shape and in mode of production with the flange ends of hollow-headed metallic cartridge-shells, and, if the parts are properly proportioned, the protruding end *c* of the leaden part will be upset or headed in said receptacle *b*, sufficiently to prevent sepa-

ration without detectable violence, before the receptacles are flattened to an appreciable extent. Very soft annealed sheet-iron, or brass or copper, as thin as may be desired, may be used to advantage in this shape in the manufacture of these seals.

The hasp *h* (shown in Figs. 2 and 3) is provided with a supplemental staple or eye, *e*, on its face, to facilitate securing it on the staple *s*, by a seal of this description used alone. This, however, forms no part of my present invention, and is not to be considered essential thereto.

Having thus described my said improvement in metallic seals, I claim as my invention—

1. A metallic seal of sheet metal and soft metal combined, having compressible receptacles *a b*, formed at the respective ends of the sheet-metal strip, and its soft-metal part cast fast in one of said receptacles, and constructed with a protruding end adapted to enter the other of said receptacles, and to be secured therein when the seal is pressed, substantially as herein specified, for the purposes set forth.

2. The combination, in a metallic seal, of a sheet-metal strip constructed with bent-up tubular compressible receptacles at its respective ends, and a leaden part cast fast in one of said receptacles and having a protruding end fitted to enter the other, said receptacles being adapted to be flattened upon the lead within them and to receive deep indented press-marks, substantially as herein specified, for the purposes set forth.

3. An improved metallic seal composed of a sheet-metal strip having its respective ends constructed with bent-up tubular receptacles, and a leaden part cast fast in one of said receptacles, having a protruding end fitted to the other, said receptacles and leaden part forming, when united and unpressed, a loose hinge with its axis transverse to the strip, substantially as herein specified, for the purposes set forth.

EDWARD J. BROOKS.

Witnesses:

H. L. C. WEST,
L. F. HOVEY.