

(No Model.)

E. J. BROOKS.

SEAL.

No. 348,884.

Patented Sept. 7, 1886.

Fig. 1.

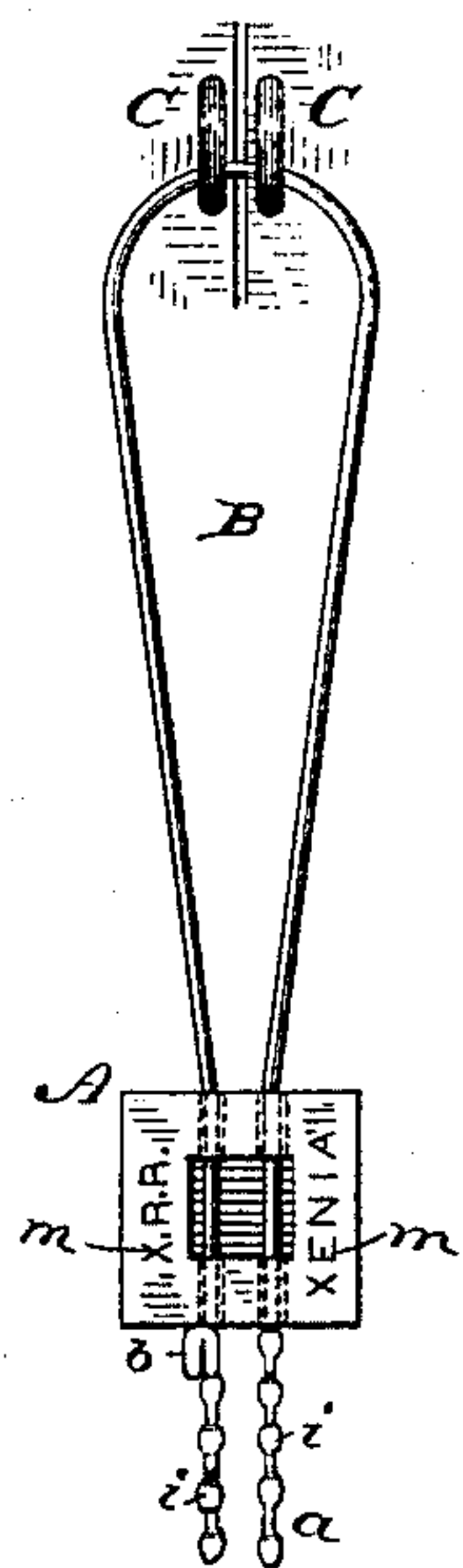


Fig. 3.

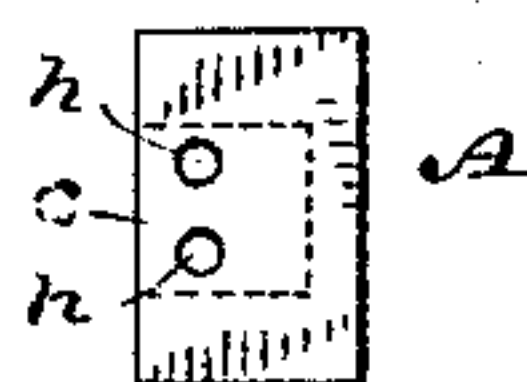


Fig. 2.

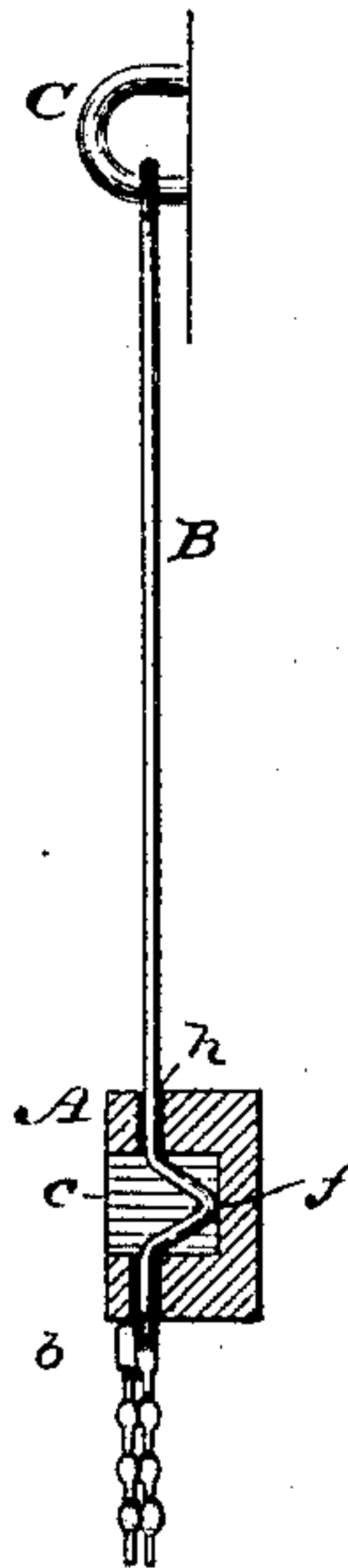


Fig. 4.

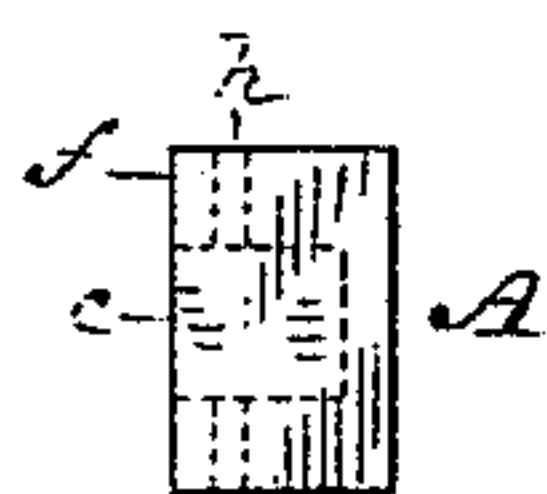


Fig. 5.

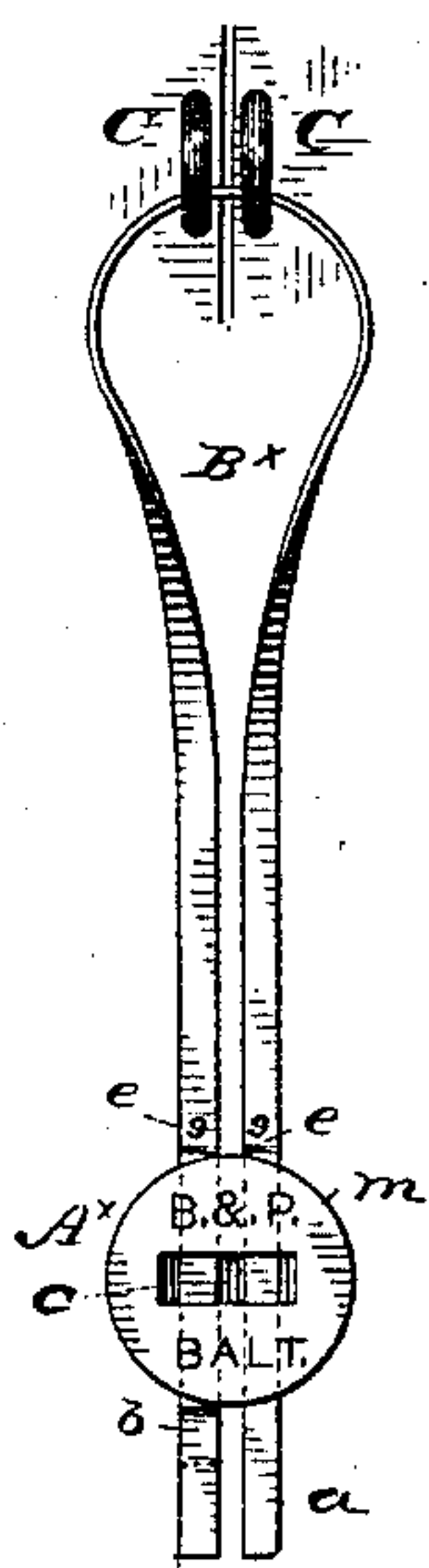


Fig. 7.



Fig. 6.

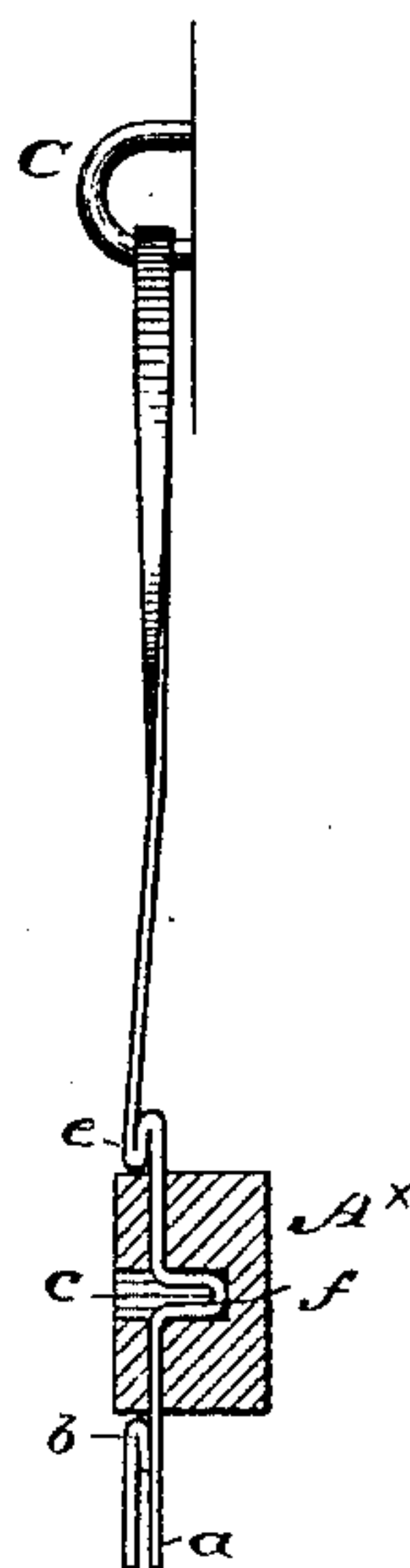
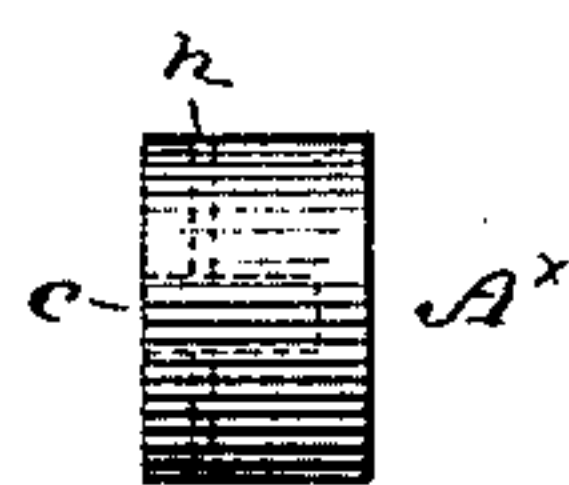


Fig. 8.



WITNESSES

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# UNITED STATES PATENT OFFICE.

EDWARD J. BROOKS, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO E. J. BROOKS & CO., OF NEW YORK, N. Y.

## SEAL.

SPECIFICATION forming part of Letters Patent No. 348,884, dated September 7, 1886.

Application filed June 2, 1884. Serial No. 133,573. (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 Seals, ("H,") of which the following is a specification.

This invention is additional to my improvement in seals patented May 6, 1884, set forth in my specification forming part of United States Patent No. 298,168, and relates therewith, and with numerous "seal" inventions previously patented by me, to that general class of seals in which flexible shackles are combined with or provided with means for uniting or fastening their ends after they are passed through pairs of car-door staples, or applied in other ways to railway freight-car doors, or elsewhere, to seal fast or secure a movable part or object.

The seals set forth in my previous specification, forming part of said Patent No. 298,168, are each composed of a sheet-metal shackle and a seal-disk of hard and rigid or substantially rigid material.

The present invention consists in an improved seal or seals in which shackles of round, square, or flat wire are combined with seal-disks of such hard and rigid materials, and so as to expose to view the fastenings of both ends of the shackle, while the shackle may be secured against fraudulent duplication thereof or of any part thereof, so as to insure the detection of cutting either end and refastening it should this be attempted, and at the same time conveniently made of sufficient lengths to pass wholly around boxes and other packages for sealing the same, as they have heretofore been sealed with cording seals and lead and wire seals. The improved seals provide, moreover, for readily uniting the parts preliminarily by furnishing the shackle at or near one end with a bent-up enlargement or "stop-bend," and simply stringing the seal-disk thereupon preliminary to applying the seal, as hereinafter set forth.

A sheet of drawings accompanies this specification as part thereof.

Figure 1 of these drawings is a face view of a seal applied to a pair of car-door staples, but unpressed. Fig. 2 is an edge view of the

same seal pressed, the seal-disk being shown in section; and Figs. 3 and 4 are edge views of this seal-disk. Fig. 5 is a face view of an unpressed flat-wire seal made according to this invention and applied to a pair of car-door staples. Fig. 6 is an edge view of this seal pressed or fastened, the seal-disk being shown in section, and Figs. 7 and 8 are edge views of this seal-disk.

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

Each seal is composed of a seal-disk, A or A<sup>x</sup>, and a shackle, B or B<sup>x</sup>, the latter of wire, which may be round, as shown in Figs. 1 and 2, or square wire applied in like manner, or flat, as shown in Figs. 5 and 6, the same in either case to be so hard as to preclude straightening out an abrupt bend therein and rebending it without breaking the wire. Suitable iron wire is recommended.

Each seal-disk A or A<sup>x</sup> is constructed with a central recess or fastening-cavity, c, in its otherwise solid face, which cavity may have parallel sides, and be of small size and simple shape, as represented, while a contracted threading hole or holes, h, and preferably two, as shown, fitted to a single thickness of the wire and formed parallel to and close behind said face, provide for admitting the respective shackle ends, and locating the same side by side across the said cavity c, near the face of the seal-disk. The seal-disks are readily molded or cast with permanent distinguishing-marks m, Figs. 1 and 5, of any preferred description, adapted to be formed in cameo or intaglio characters, and they may be made of various shapes, sizes, and colors to distinguish seals of different roads or users, as illustrated by the drawings which accompany my previous specification forming part of said Patent No. 298,168. The shackle B or B<sup>x</sup>, cut of any required length, is preferably provided with a stop-bend, b, near one extremity. Said bend is formed in the same manner as my bent-up anchoring enlargements patented July 3, 1877, and is consequently of three thicknesses of the wire, and cannot possibly pass through either of the threading-holes of the seal-disk. The other end, a, of the shackle being passed through one of the threading-holes h, the parts are thus united, so as to provide for carrying



them as one part, and so that only one shackle end need be threaded at the sealing operation, and if so united at the factory the accidental separation of the parts of the seal A B may be provided against by slightly bending the wire immediately above the seal-disk at the same time. After said shackle end *a* is threaded preparatory to pressing or fastening the seal, as illustrated by Figs. 1 and 5, both shackle ends are presented alike across the front of the fastening-cavity *c* of the seal-disk, and when pressed or fastened, which is accomplished by one action of a suitable bending die or punch, both ends are secured equally, and both fastening-bends *f*, Figs. 2 and 6, while guarded against access thereto by the sides and backs of the cavities *c*, are exposed to view in front, so that any tampering with them may be easily detected.

In addition to said stop-bend *b*, each shackle is preferably provided in the factory with detector-indentations *i*, Figs. 1 and 2, as set forth in my specification forming part of United States Patent No. 278,866, dated June 5, 1883, for example, or detector-enlargements *e*, Figs. 5 and 6, similar to said stop-bends *b*, to indicate the original extremities of the wire, so that violation of a seal will be manifest although a broken or cut end be refastened.

In the flat-wire seal A<sup>x</sup> B<sup>x</sup>, represented by Figs. 5 to 8, inclusive, the parts are permanently united by one of said detector-enlargements *e*, while the other of said enlargements forms a stop to facilitate adjusting the other end of the shackle for sealing, as shown in Fig. 5.

In use the free end *a* of the shackle A or A<sup>x</sup> is passed through a pair of car-door staples, C C, or otherwise applied to the object which is to be secured by the seal, and is then threaded through the seal-disk B or B<sup>x</sup>, after which both shackle ends are pressed or stamped

simultaneously within the fastening-cavity of the seal-disk, as aforesaid, and separation of the parts without breaking one of them is thus rendered impossible.

Having thus described my said improvement in seals, ("H,") I claim as my invention and desire to patent under this specification—

1. An improved seal composed wholly of a hard and rigid seal-disk and a flexible shackle of hard wire, the former molded or cast with permanent distinguishing-marks and having a face which is unbroken save by a central fastening-cavity, and provided with contracted threading-holes adapted to receive the respective shackle ends and to locate them across the front of said cavity side by side, while said shackle ends are adapted to be so threaded and to receive and retain fastening-bends, as herein specified.

2. The combination of a seal-disk of hard and rigid material, having a central fastening-cavity in its face and a pair of contracted threading-holes side by side, and a shackle of wire having one end provided with a stop-bend which engages with the lower edge of said seal-disk, after the threading end of the wire is passed through one hole of the latter, for uniting the parts preliminary to applying the seal, substantially as herein specified.

3. In combination with a seal-disk of hard and rigid material, having contracted threading-holes, a central sealing-cavity, and permanent distinguishing-marks, a shackle of wire adapted to have its ends secured by fastening-bends within said cavity, and provided with detector-indentations or enlargements which indicate the original extremities of the wire, substantially as herein specified.

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