(No Model.)

E. J. BROOKS.

SEAL.

No. 524,674. Patented Aug. 14, 1894.

Fig. 1.

Fig. 6.

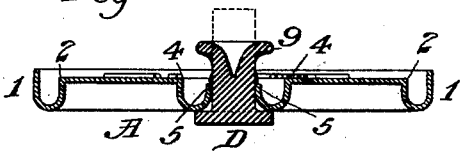


Fig. 2.

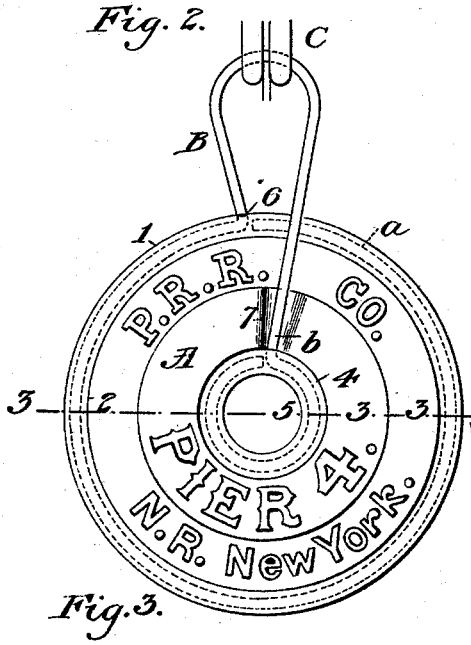


Fig. 7.

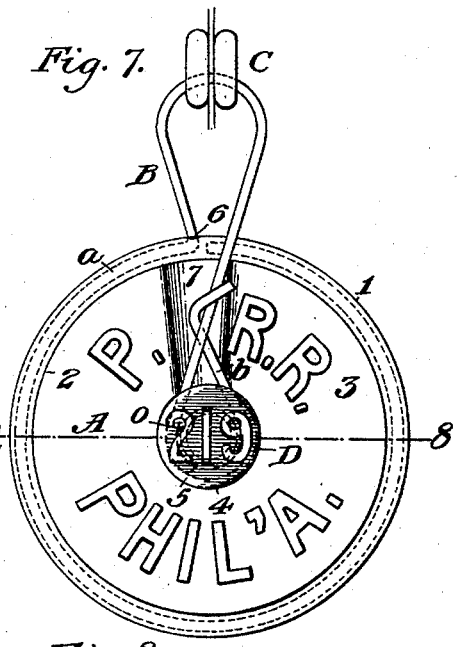


Fig. 3.

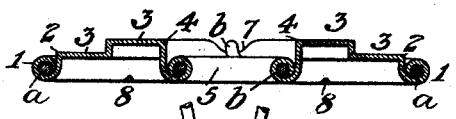


Fig. 8.

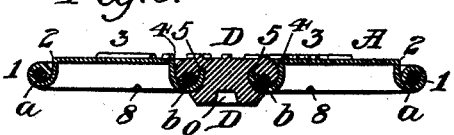


Fig. 4.

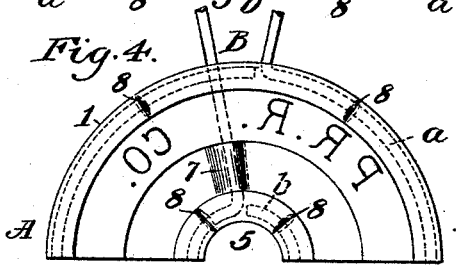


Fig. 9.

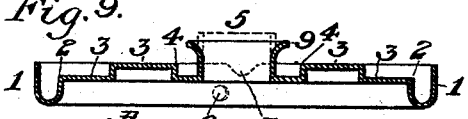


Fig. 10.

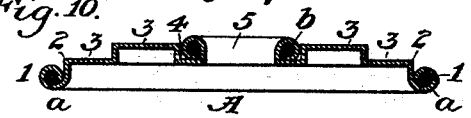


Fig. 5.

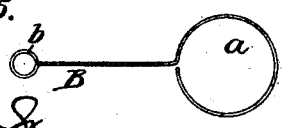
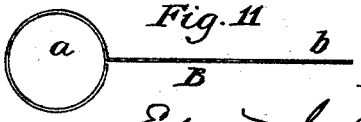


Fig. 11



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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

SEAL.

SPECIFICATION forming part of Letters Patent No. 524,674, dated August 14, 1894.

Application filed May 8, 1894. Serial No. 510,514. (No model.)

To all whom it may concern:

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

This invention relates to what may be termed tag-seals, in which provision is made for displaying any required lettering, in characters large enough to be readily seen, by means of a tag of relatively large area as compared with an ordinary seal-disk. Such seals are set forth in my previous specifications forming part of United States Letters Patent No. 178,722, dated June 13, 1876; No. 209,008, dated October 15, 1878; No. 235,668, dated December 21, 1880; No. 236,539, dated January 11, 1881; No. 258,278, dated May 23, 1882, and No. 278,866, dated June 5, 1883.

The present invention also relates to those press-fastened seals in which the seal-disk is of sheet-metal, as set forth in my previous specifications forming part of United States Letters Patent No. 324,647, dated August 18, 1885, and another bearing date May 22, 1894, No. 520,390.

The present invention consists primarily in the combination with a wire-shackle of a combined seal-disk and tag of sheet-metal, preferably circular, which can conveniently be made of any required diameter and of single thickness, and at the same time secure against being violated without detection.

The invention further consists in a specific annular seal-disk and tag combined, wired with both ends of the shackle; and in means for preventing the withdrawal of flexible wire lengthwise to unfasten the seal.

A sheet of drawings accompanies this specification as part thereof.

Figure 1 of these drawings represents a diametral section through an annular seal-disk and tag combined, of sheet metal, as produced by stamping preparatory to the production of a tag-seal according to this invention. Fig. 2 is a face view of a tag-seal comprising an annular disk produced as in Fig. 1. Fig. 3 represents a section on the line 3—3 Fig. 2. Fig. 4 represents a partial back view of the tag-seal Figs. 2 and 3. Fig. 5 represents an elevation of the wire-shackle of said tag-seal, reduced three diameters. Fig. 6 represents a diametral section through a modified disk provided with a soft-metal rivet to form a combined button-seal and tag. Fig. 7 is a face view of such button-seal and tag, press-fastened. Fig. 8 represents a section on the line 8—8 Fig. 7. Figs. 9 and 10 are diametral sections through another modified disk, and through a press-fastened button-seal and tag, produced therewith; and Fig. 11 is a small scale elevation of the wire shackle common to the tag-seals represented by said Figs. 6 to 10 inclusive.

Like letters and numbers refer to corresponding parts in all the figures.

Each of the tag-seals represented by the accompanying drawings comprises a combined seal-disk and tag A, preferably circular, of suitable sheet-metal, such as thin tin (tin-plate), and a wire-shackle B having a large permanent loop *a* at one of its ends with which the perimeter of said disk and tag is wired in the peculiar manner hereinafter set forth, this end of the shackle B being thus securely attached to the disk *a*. Its other end *b* remains free until the tag-seal is finally press-fastened after application to a pair of car-door staples C or the like, as in Fig. 2 or Fig. 7, and is then secured at the middle of the disk in like manner or by other appropriate means.

The disk A of the specific tag-seal represented by Figs. 1 to 5 inclusive is originally stamped, as in Fig. 1, with a recurved rim 1 at its perimeter, an annular shoulder 2 immediately within said rim, annular fields 3 provided with the required lettering or distinguishing marks in embossed characters, an annular shoulder 4 concentric with said shoulder 2, and a recurved rim 5 surrounding the central opening within said annular shoulder 4; and with a small hole 6 of the diameter of the wire in the outer rim 1, and a radial depression 7 in the higher of said lettered fields 3.

The free end *b* (unlooped) of the shackle B is threaded through said hole 6, and the loop *a* is drawn into the annular depression formed by the rim 1, and said rim is then refolded against the shoulder 2 to wire the disk with

said loop as above, and to prevent unfolding the rim by sinking its edge behind the outer field 3. This feature is common to all the improved tag-seals as above. After the shackle B of said tag-seals Figs. 1 to 5 is so attached, its free end *b* is provided, as in Fig. 5, with a loop fitted to the depression formed by the recurved inner rim 5, and, after this end of the shackle has been threaded through the staples C or their equivalent, its said loop is engaged with said rim 5, and secured by refolding said rim against said shoulder 4, as in Figs. 2, 3 and 4; the end *b* adjacent to its loop lying within said depression 7. To prevent the withdrawal of either end of the shackle lengthwise, in case the wire should be sufficiently flexible and strong and should happen to be loose within the refolded rims of the disk, the backs of the rims 1 and 5 are provided with radial indentations 8, two or more to each rim. These can readily be formed by chisel-like projections on the beddie in the operation of refolding the rims to secure the respective shackle-loops; and the loop *a*, common to all the tag-seals, may be thus secured in all cases, and is the only one which is otherwise liable to be insecure if not tightly embraced by the coacting rim.

The disk A of the modified tag-seal represented by Figs. 6 to 8 inclusive is substantially identical with the disk above described, apart from its inner rim 5, which is not designed and is consequently not adapted to be refolded as above, and is preferably of smaller diameter as compared with the rim 5 of the disk first described. A soft-metal rivet D having a hollow stem is inserted through the central opening within the rim 5, with its head at the back of the disk, and is then compressed lengthwise and partly upset to form an overhanging flange 9 at the front of the disk to adapt the end *b* of the shackle B to be applied and fastened as in a "button-seal." The shackle B consequently retains a straight end *b*, as in Fig. 11, until after it is threaded through the staples C or their equivalent. It is then wrapped one or more times around the shank formed by the inner rim 5 and the superjacent portion of the stem of the rivet D, after which said rivet D is pressed by means of a suitable seal-press, and said end *b* of the shackle is thus permanently secured; the edges of the solidified and stamped soft-metal being guarded by the inner shoulder 4 of the disk, and one or both of its faces provided with press-marks O, as in Figs. 7 and 8.

In the modified tag-seal represented by Figs. 9 and 10 in connection with Fig. 11, the disk A is substantially similar to said disk A of the tag-seal described, except that it has an elongated inner rim 5 adapted to be preliminarily upset to form a button-seal flange 9 at the front of the disk, as in Fig. 9, so as to operate in connection with said form of shackle represented in Fig. 11 having a straight end *b* until after it is threaded through the staples C or their equivalent; the other end of the shackle having a loop *a* secured within the outer rim 1 at the factory, while said end *b* is secured, after being wrapped one or more times around the central shank of the seal, by refolding the central rim 5 around said shackle-end *b* and against the central shoulder 4 of the seal.

Two annular fields 3, provided with appropriate lettering, are shown in Figs. 1 to 4 and Figs. 9 and 10, while a single lettered field is represented in Figs. 6 to 8.

It will be obvious that in either seal there may be one, two or more lettered fields as may be preferred, and that their shape and proportions may be varied as aids in distinguishing the seals of different owners.

Sheet-metal of different colors may conveniently be utilized for a like purpose; and other like modifications will suggest themselves to those skilled in the art.

Having thus described the said improvement, I claim as my invention and desire to patent under this specification—

1. An improved tag-seal comprising a sheet-metal disk having a shoulder and a wire-securing rim refolded against said shoulder at its perimeter, and a wire-shackle having a permanent loop at one end secured by said rim, said shoulder serving to prevent access to the edge of the rim, and separate means being provided for securing the other end of the shackle.

2. An improved tag-seal composed of an annular sheet-metal disk having a shoulder and a wire-securing rim refolded against said shoulder at its perimeter, and a like shoulder and wire-securing rim at its center, and a wire-shackle having permanent loops at its respective ends secured by said rims, substantially as hereinbefore specified.

3. In a tag-seal, the combination with a wire-shackle having a looped end of a sheet-metal disk having a shoulder and a wire-securing rim refolded against said shoulder and provided with radial indentations to prevent the withdrawal of the wire lengthwise, substantially as hereinbefore specified.

EDWARD J. BROOKS.

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