E. J. BROOKS.
Baggage-Seal.

No. 208,953. **Patented Oct. 15, 1878.**

FIG. 1.

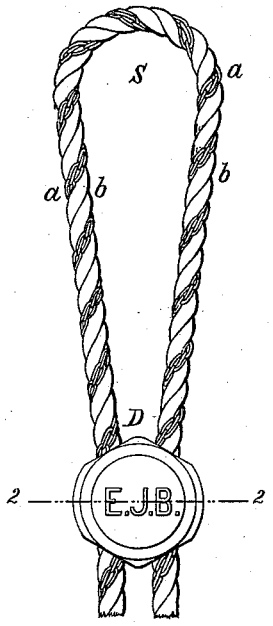

FIG. 3.

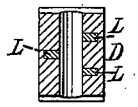

FIG. 4.

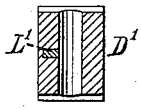

FIG. 5.

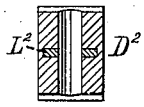

FIG. 2.

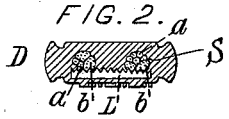

FIG. 6.

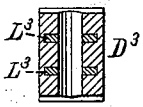

FIG. 7.

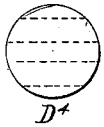

FIG. 8.

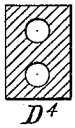

FIG. 9.

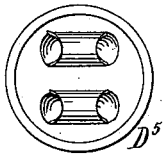

FIG. 10.

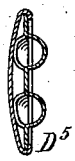

FIG. 11.

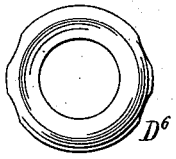

FIG. 12.

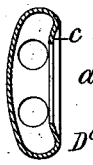

FIG. 13.

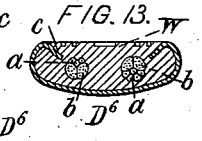

FIG. 14.

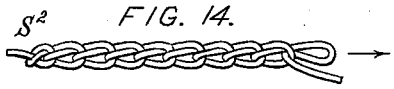

FIG. 15.

FIG. 16.

WITNESSES:

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E. D. Mackintosh.

INVENTOR:

Edward J. Brooks

By Knight Bros. Attorneys

UNITED STATES PATENT OFFICE.

EDWARD J. BROOKS, OF NEW YORK, N. Y.

IMPROVEMENT IN BAGGAGE-SEALS.

Specification forming part of Letters Patent No. **208,953**, dated October 15, 1878; application filed September 4, 1878.

To all whom it may concern:

Be it known that I, EDWARD J. BROOKS, of the city and county of New York, in the State of New York, have invented a new and useful Improvement in Cording-Seals, of which the following is a full, clear, and exact specification:

In custom-houses, post-offices, and some private business-houses provision is made for preventing or detecting the opening of packages surreptitiously by the employment of what are known as "cording-seals," the shackles of which consist of proper lengths of cord or twine, the same being preferred and exclusively employed on account of its adaptation to be readily cut by means of an ordinary knife, and for other reasons.

My present invention consists, first, in an improved cording-seal shackle of cord or twine, having alternating hard and soft places or enlargements and thin places, formed by successive interlocked loops in a knitting or enchaining process, by which the said shackle or one or more of its strands is manufactured. The knitted strand or shackle is adapted to be cheaply produced, either continuously or in shackle lengths, by automatic machinery of simple construction. The hard places or enlargements formed by loops, as aforesaid, present superior holding-surfaces, said loops admitting the locking devices or the material of the seal-disk between said hard places or enlargements. Each enlarged part presents an equally efficient holding-surface, whatever portion of the same is within the seal-disk, and any preferred style of seal-disk may be used therewith, while the exposed portions of the said shackle facilitate ascertaining whether any given seal is genuine and untampered with. To increase the latter effect, and more particularly to prevent counterfeiting, my said invention consists, secondly, in forming a superior shackle by combining two or more strands of contrasting fibers, differing in color or material, or both, one of the said strands being of knitted cord or twine, having hard places or enlargements, as aforesaid, for securing the same within the seal-disk, as hereinafter more fully set forth.

Figure 1 of the accompanying drawing is an elevation of a pressed cording-seal having a shackle, which illustrates this invention. Fig. 2 is a transverse section of the same in the plane indicated by the line 2 2, Fig. 1. Figs. 3, 4, 5, and 6 are sectional edge views of the same seal-disk and three others, unpressed, illustrating modifications of the same style of disk. Figs. 7, 9, 11 are face views, and Figs. 8, 10, and 12 transverse sections, of other seal-disks, unpressed, illustrating the employment of the same in connection with the said improved shackle. Fig. 13 is a cross-section of the seal-disk shown in Figs. 11, 12, after pressing. Figs. 14, 15, 16 are elevations of other shackles, illustrating modifications.

My improved shackle for cording-seals, in a preferred form, is illustrated at S in Figs. 1 and 2. It consists of a novel description of twisted cord or twine, having a safety-strand, *a*, which forms enlargements or hard places at intervals on the surface of the shackle, and also distinguishes the same by its peculiar appearance and by a contrasting color.

The latter effect is accomplished by making the safety-strand of bright-colored cord—red, for example—and the other strands, *b*, (one or more) of the natural color of the hemp or other fiber. It is also proposed, however, to color other strands of the shackle, and in some cases to leave the strand *a* uncolored, so as to produce different combinations, and also to make one or more of the strands wholly or in part of any description of safety-fiber, the employment of which for other twine may be prohibited by law, like the fiber-mark of the paper used for the national currency.

The said strand *a* is manufactured with enlargements or hard places, as aforesaid, by knitting or enchaining the same. This gives it alternately three thicknesses, as shown at the left in Fig. 2, and five thicknesses, as shown at the right in said figure, and the latter points constitute the said enlargements or hard places, between which the substance or edges of the seal will securely hold. I propose employing for this strand twisted small cord or twine or a strand of loose fiber of the proper size, as may be preferred, the same to be knitted or enchained continuously by hand, or preferably by automatic machinery, and then united with the other strand or strands by twisting in the ordinary manner.

The shackle-rope will be wound on spools or into balls, or at once cut into proper lengths for shackles, with or without preliminary waxing to prevent untwisting.

In Figs. 1 and 2 the shackle S, above described, is shown in a pressed soft-metal seal-disk, D, containing locking-pieces L, of hard metal, as described in my Patent No. 154,639, dated September 1, 1874, the locking-pieces, three in number, being of cast-iron, with serrated edges, and arranged alternately, as shown in Fig. 3, transverse to the threading-apertures. It will be seen that when the seal is pressed the said locking-pieces will indent the soft shackle ends on opposite sides, and hold the same with great security.

Instead of three locking-pieces, as shown in Fig. 3, a single locking-piece, L^1, may be employed in each seal-disk D^1, as illustrated in Fig. 4; or a single pair, L^2, may be employed in each seal-disk D^2, as illustrated in Fig. 5; or each seal-disk D^3 may be provided with two such pairs of locking-pieces, L^3, as illustrated in Fig. 6.

I also propose using ordinary lead seal-disks D^4, without locking-pieces, as illustrated by Figs. 7 and 8, or a clamping-seal-disk, D^5, of sheet metal, as illustrated in Figs. 9 and 10, or ordinary sealing-wax W, in connection with a sheet-metal cup, D^6, or its equivalent, as illustrated in Figs. 11, 12, and 13. The cup of the latter, it will be observed, has been constructed with an inturned rim, *c*, which is covered by the wax, and yields with the latter when the seal is pressed. Said seal-disks, in themselves considered, constitute no part of the present invention.

As different seal-disks may be applied to the improved shackle, so the latter may itself be modified in construction without departing from the fundamental feature above specified—to wit, enlargements or hard places, formed in the process of manufacture to prevent the withdrawal of the shackle ends from the pressed seal-disk.

I propose, for example, to make a shackle, S^2, of a single strand, knitted or enchained like the safety-strand *a*, above described, as illustrated by Fig. 14. I also propose to make a shackle, S^3, by knitting or enchaining a smaller strand, precisely like said strand *a*, for example, and then reknitting or enchaining the same, as illustrated by Fig. 15. I also propose to braid together three or more such knitted strands of one or different colors, as illustrated by Fig. 16.

I disclaim wire shackles having anchoring enlargements or projections, and also knotted shackles, whether of wire, cord, or twine, as forming no part of my present invention.

The following is what I claim as new and of my own invention, and desire to secure by Letters Patent, namely:

1. As a new article of manufacture, a shackle for cording-seals composed wholly or in part of knitted cord or twine, having a series of hard places or enlargements formed by interlocked loops, as herein specified, for the purposes set forth.

2. A shackle for cording-seals composed of two or more strands of contrasting fibers, one of said strands being of knitted cord or twine, having a series of hard places or enlargements formed by interlocked loops, as herein shown and described, for the purposes specified.

E. J. BROOKS.

Witnesses:
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ISIDOR GRAYHEAD.