

No. 734,807.

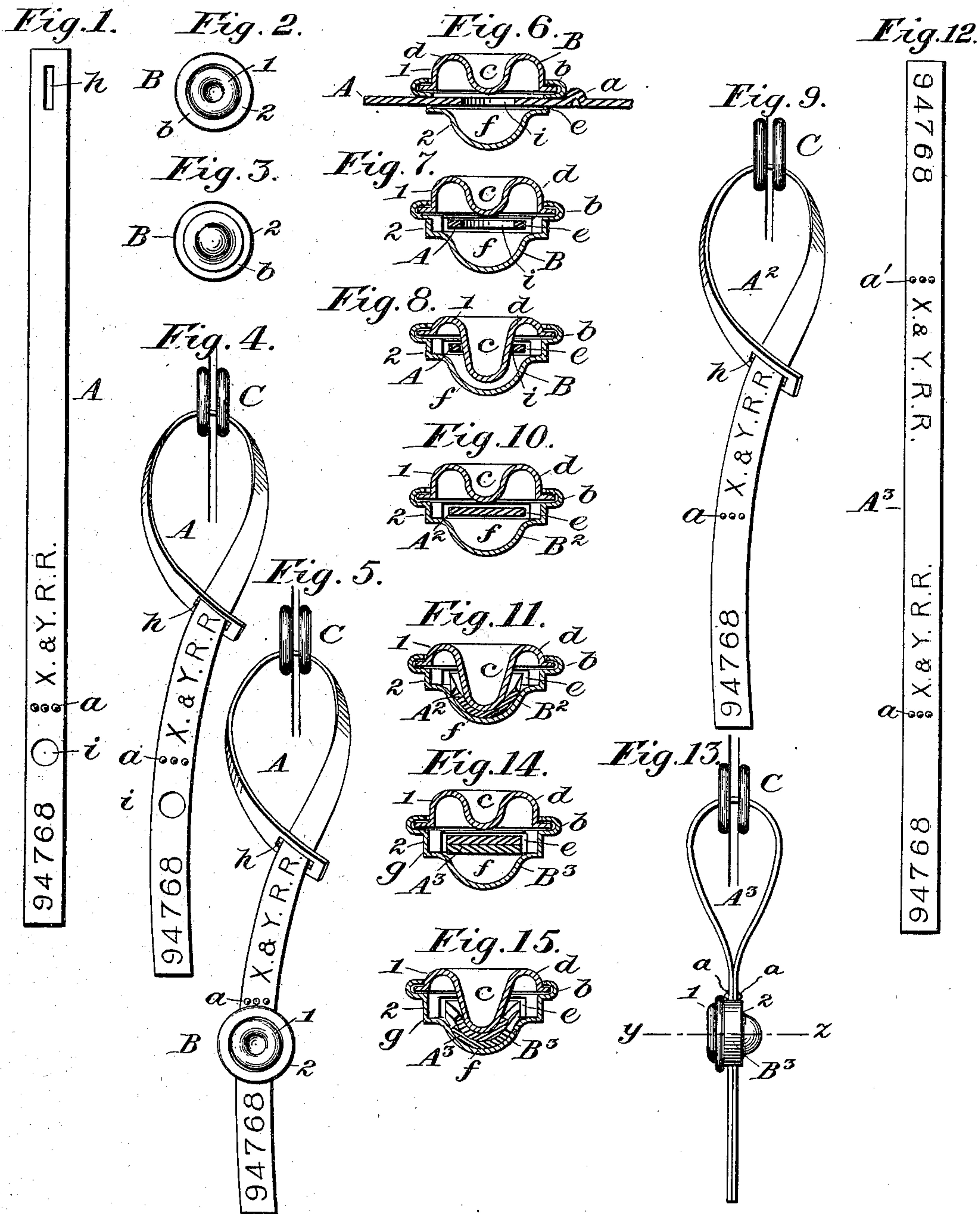
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E. J. BROOKS.

SEAL.

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NO MODEL.



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## SEAL.

SPECIFICATION forming part of Letters Patent No. 734,807, dated July 28, 1903.

Application filed April 25, 1903. Serial No. 154,241. (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 press-fastened seals for securing the doors of railway freight-cars and for other like uses and to those seals which are composed exclusively of sheet metal, such as "tin" (tin-plate) or sheet-brass, or of equivalent material in sheet form.

An object of the present invention is to produce a secure seal of such description of light weight and at the same time adapted to carry a liberal amount of lettering or distinguishing-marks as compared with other seals of the same class.

Another object is to facilitate and expedite threading such seals preliminary to the pressing operation.

Another and chief object is to materially lessen the work of the seal-press, and thus to facilitate securely fastening the improved seal by means of a ratchet-press with less exertion on the part of the sealer and with less wear in the press.

The invention consists in an improved seal embodying means for accomplishing the objects above stated and in novel combinations of parts therein whereby the respective effects are produced, as hereinafter set forth and claimed.

A sheet of drawings accompanies this specification as part thereof.

Figure 1 of the drawings is a face view of the shackle of an improved seal embodying the present invention. Figs. 2 and 3 are front and back views, respectively, of its seal part. Fig. 4 is an elevation showing the improved shackle applied to a pair of car-door staples and ready to receive the seal part. Fig. 5 is a like elevation showing the seal part in position. Fig. 6 represents a section lengthwise of the shackle through the seal part. Figs. 7 and 8 represent cross-sections through the seal part and shackle, showing the seal part respectively as it appears before and after the pressing operation. Fig. 9 is an elevation showing a modified shackle applied to car-door staples and ready for the

seal part. Figs. 10 and 11 represent cross-sections through said modified shackle and through a seal part, showing the same respectively before and after the pressing operation. Fig. 12 is a face view of another modified shackle. Fig. 13 is an elevation showing an improved seal embodying the shackle last named applied to car-door staples; and Figs. 14 and 15 represent cross-sections on the line  $y z$ , Fig. 13, showing the shackle and seal part last named, respectively, as they appear before and after the pressing operation.

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

The improved seal in any of its forms is composed of a flexible shackle A or A<sup>2</sup> or A<sup>3</sup> of sheet material, preferably and conveniently cut in the form of a narrow rectangular strip from a sheet of tin and provided in the sheet with a serial number, (shown as "94,768.") suitable distinguishing lettering, ("X. & Y. R. R.,"), and a stop or stops, (shown at  $a$  and  $a'$ ), and a hollow sheet-metal part B or B<sup>2</sup> or B<sup>3</sup>, composed of two cup-shaped pieces 1 and 2, hereinafter termed "cups," inseparably interlocked with each other by a circumferential seam  $b$  and constructed, respectively, with an inwardly-projecting locking portion  $c$ , surrounded by an annular yielding portion  $d$  and with a pair of diametrically opposite shackle-admitting openings  $e$ , the cup 2 last named being also preferably and conveniently constructed with a hollow central protuberance  $f$ , matching said inwardly-projecting locking portion  $c$  and surrounded by edge walls  $g$  of less depth, in which said shackle-admitting openings  $e$  are formed.

In the species represented by Figs. 1 to 8, inclusive, one end of the shackle A is provided with a longitudinal slot  $h$ , through which the other end and the stop  $a$ , formed on the latter, freely pass in applying the shackle A to car-door staples C or the like preliminary to applying the seal part B, as illustrated by Fig. 4, and the other end of the shackle is provided between its stop  $a$  and the extremity of the shackle and adjacent to the former with a locking-hole  $i$ . (Shown in Figs. 1, 4, 6, 7, and 8.)

The shackle-admitting openings  $e$  of the seal part B are fitted to the shackle end provided with said locking-hole  $i$  and admit the



same freely, but not the stop *a*, which arrests the seal part B in proper position on the shackle A, as illustrated by Fig. 5, and locates its locking portion *c* in line with said locking-hole *i*, as in Figs. 6 and 7.

A "ratchet" seal-press, such as is shown in my drawings, forming part of Letters Patent No. 660,837, dated October 30, 1900, or a suitable seal-press of any known or improved construction is then applied to the seal part B, so as to force the locking portion *c* of the latter endwise into and through the locking-hole *i* of the shackle A, leaving the same in the condition illustrated by Fig. 8, with the seal part B and shackle A inseparably fastened together.

In the species represented by Figs. 9, 10, and 11 the shackle A<sup>2</sup> and seal part B<sup>2</sup> are both of the same construction as in the species above described, except that said locking-hole *i* of the shackle A is omitted. This necessitates the employment in the shackle of more ductile sheet metal than is necessary in the species first described; but given sufficiently ductile metal in the shackle A<sup>2</sup> the seal is adapted to be fastened, as illustrated by Fig. 11, by pressing the locking portion *c* of the seal part B<sup>2</sup> against that portion of the shackle A<sup>2</sup> within the seal part, so as to permanently bend this shackle portion into more or less perfect conformity to said locking portion *c*, and thus to inseparably interlock the seal part B<sup>2</sup> and shackle A<sup>2</sup> with each other.

In the species illustrated by Figs. 12, 13, 14, and 15 both ends of the shackle A<sup>3</sup> are of the same construction as the lower end in Fig. 9, and the seal part B<sup>3</sup> is made deep enough to accommodate shackle-admitting openings *e* of sufficient dimensions to admit both ends of the shackle A<sup>3</sup>, as in Figs. 13, 14, and 15. Still more ductile metal is necessary in a shackle of this construction; but given sufficiently ductile metal in the shackle A<sup>3</sup> the two parts may be inseparably interlocked with each other, as illustrated by Fig. 15.

The species last described may be further modified by providing both shackle ends with locking-holes *i* to receive the locking portion *c* of the seal part, and thus to facilitate the pressing operation. The flexible shackle provided with locking-holes *i* may be made of other suitable sheet material, such as celluloid or tough paper. The stops *a* and *a'* may be made by transverse rows of protuberances raised on the shackle, as represented in the several figures or in any approved way. The distinguishing-marks may be either printed or embossed and of any appropriate kind. The seal parts of different roads or different owners may be distinguished from each other, if desired, by different colors or marks, and other like modifications will suggest themselves to those skilled in the art.

Having thus described said improvement,

I claim as my invention and desire to patent under this specification—

1. A seal part for a press-fastened seal composed of two sheet-metal cups, inseparably interlocked with each other, and constructed respectively with an inwardly-projecting locking portion surrounded by an annular yielding portion whereby said locking portion is rendered movable endwise at the pressing operation and with a pair of diametrical shackle-admitting openings in a plane behind that of said locking portion in the unpressed seal, in combination with a flexible shackle of sheet material, adapted to be threaded through said openings and to be fastened against withdrawal by pressing said locking portion across the plane of said openings.

2. A seal part for a press-fastened seal composed of two sheet-metal cups inseparably interlocked with each other by a circumferential seam, and constructed respectively with a central inwardly-projecting locking portion surrounded by an annular yielding portion whereby said locking portion is rendered movable endwise at the pressing operation and with a pair of diametrical shackle-admitting openings in a plane behind that of said locking portion in the unpressed seal, in combination with a flexible shackle of sheet material, adapted to be threaded through said openings and to be fastened against withdrawal by pressing said locking portion across the plane of said openings.

3. A seal part for a press-fastened seal composed of two sheet-metal cups, inseparably interlocked with each other, and constructed respectively with an inwardly-projecting locking portion surrounded by an annular yielding portion and with a pair of diametrical shackle-admitting openings in a plane behind that of said locking portion in the unpressed seal, in combination with a flexible shackle of sheet material, adapted to be threaded through said openings and to be fastened against withdrawal by pressing said locking portion across the plane of said openings, and provided with a stop to properly locate said seal part on said shackle preliminary to the pressing operation.

4. A seal part for a press-fastened seal composed of two sheet-metal cups, inseparably interlocked with each other, and constructed respectively with an inwardly-projecting locking portion surrounded by an annular yielding portion and with a pair of diametrical shackle-admitting openings, in combination with a flexible shackle of sheet material, adapted to be threaded through said openings and to be fastened against withdrawal by pressing said locking portion across the plane of said openings, and provided with a locking-hole to receive said locking portion.

5. A seal part for a press-fastened seal composed of two sheet-metal cups, inseparably interlocked with each other, and constructed respectively with an inwardly-projecting locking portion surrounded by an annular



yielding portion and with a pair of diametrical shackle-admitting openings, in combination with a flexible shackle of sheet material, adapted to be threaded through said openings and to be fastened against withdrawal by pressing said locking portion across the plane of said openings, and provided with a hole to receive said locking portion and with a stop arranged to locate said seal part opposite said hole preliminary to the pressing operation.

6. A seal part for a press-fastened seal composed of two sheet-metal cups, inseparably interlocked with each other, and constructed respectively with an inwardly-projecting locking portion surrounded by an annular-yielding portion and with a pair of diametrical shackle-admitting openings, in combination with a flexible shackle of sheet material, having one end slotted and adapted to be looped to a pair of car-door staples or the like, and its other end adapted to be threaded through

said openings and to be fastened against withdrawal by pressing said locking portion across the plane of said openings.

7. A seal part for a press-fastened seal composed of two sheet-metal cups, inseparably interlocked with each other, and constructed respectively with an inwardly-projecting locking portion surrounded by an annular yielding portion and with a pair of diametrical shackle-admitting openings, in combination with a flexible shackle of sheet material, having one end slotted and adapted to be looped to a pair of car-door staples or the like, and its other end adapted to be threaded through said openings and provided with a locking-hole to receive said locking portion at the pressing operation, substantially as hereinbefore specified.

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