(No Model.)

E. J. BROOKS.

METALLIC SEAL.

No. 260,279. Patented June 27, 1882.

Fig. 1,

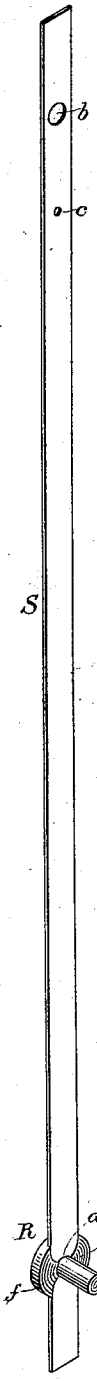


Fig. 2,

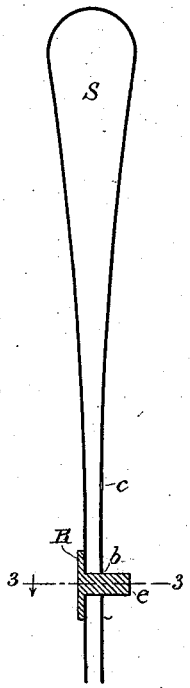


Fig. 4.

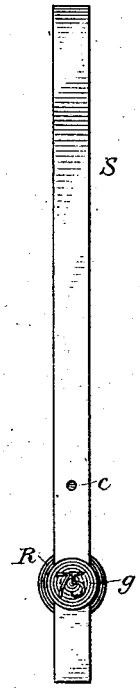


Fig. 6.

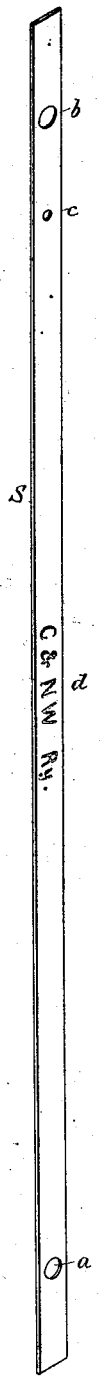


Fig. 3,

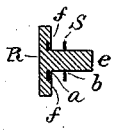


Fig. 5,

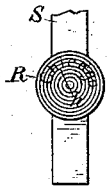
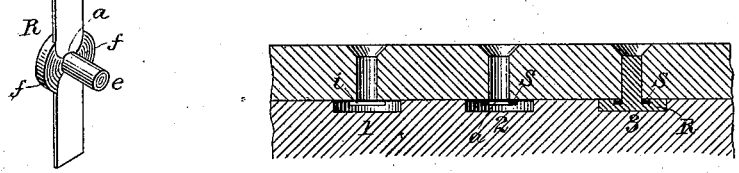


Fig. 7,



WITNESSES

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Thos. L. Lowe

UNITED STATES PATENT OFFICE.

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METALLIC SEAL.

SPECIFICATION forming part of Letters Patent No. 260,279, dated June 27, 1882.

Application filed February 25, 1882. (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 the construction of "lead-and-tin" seals for securing the doors of railway freight-cars, and for like uses, and that form of said seals in which a leaden "rivet" unites the ends of a flexible strip (of uniform width) which is adapted to be cut from the ordinary tin-plate of commerce and punched with the requisite rivet-holes, and also to be readily stamped or printed with lettering or distinguishing marks, if these be desired, so as to be cheaply produced. Heretofore cast rivets for such seals have constituted a distinct article of manufacture, and the necessarily somewhat slow work of inserting their stems in the rivet-holes of the respective ends of the strips preliminary to pressing as a part of the sealing operation, the inconvenience of carrying the parts of the seals separately, and the difficulty of finding the outside of stamped or lettered sealing-strips under some circumstances, have materially detracted from the value of such seals. In my specification, forming part of Letters Patent No. 246,068, dated August 23, 1881, I describe a lead-and-tin seal of another form, having its parts united permanently in the process of manufacture, and set forth the advantages of this mode of making seals.

My present invention consists, first, in an improved lead-and-tin seal composed of a rivet and sealing-strip possessing the advantageous qualities aforesaid, with the rivet cast on or permanently fastened to one end of the strip, so as to free this superior form of seal from the said disadvantages without materially increasing its first cost.

Figure 1 of the accompanying drawings is a perspective view of one of my improved seals as furnished for use. Fig. 2 represents a longitudinal section of the same ready for pressing. Fig. 3 represents a cross-section on the line 3 3, Fig. 2. Fig. 4 represents a back view, and Fig. 5 a fragmentary front view, of the same pressed. Fig. 6 is a perspective view of the sealing-strip as it appears before providing it with the rivet; and Fig. 7 represents a vertical longitudinal section of a series of molds, illustrating the proposed method of casting the rivets on the strips, like letters of reference indicating corresponding parts in the several figures.

My improved seal consists (unpressed) of a tin strip, S, and a rivet, R, of lead or an equivalent soft metal, permanently united, as represented by Figs. 1 to 3, inclusive. Said tin strip S may be, and by preference is, of the customary narrow form and of uniform width, having rivet-holes *a b* in its respective ends. I propose making it either with or without an index-hole, *c*, or an equivalent thereof, at one end, and lettering or distinguishing marks, *d*, Fig. 6, on the face of the strip. The rivet B, by preference cast on the strip end, with which it is fast, permanently occupies and fills the said rivet-hole *a* by means of its stem *e*, which protrudes beyond the strip the proper distance to extend through the other rivet-hole, *b*, so as to temporarily unite the ends of the strip preparatory to pressing, as shown in Figs. 2 and 3, and to be headed down, so as to securely unite the strip ends in its pressed condition, as shown in Figs. 4 and 5.

The rivet-head is preferably of greater diameter than the width of the strip, so as to embrace its edges for solidity of attachment, and at the same time to form cheeks *f f* flush with the back of the strip, as shown in Figs. 1 and 3, which will ordinarily become united with the stem *e* by a film of lead, more securely uniting the parts in the process of manufacture, and in the pressing operation will unite with the head of the pressed stem, as indicated in Fig. 4. The rivet may however be of any preferred size and shape, and may be stamped with distinguishing marks, *g h*, Figs. 4 and 5, of any description, on either or both faces; or may be pressed plain for some uses, and particularly if the strip be provided with lettering or distinguishing marks *d*, as aforesaid.

In producing this seal I proceed as follows: The strip S is manufactured in customary manner, but preferably with its rivet-hole *a* smaller than the hole *b*, and with the index-hole *c*, or an equivalent thereof, to indicate the

latter. This may all be done, together with the stamping or printing of the lettering or distinguishing-marks *d*, if these be desired, in the sheet, before cutting the latter into strips. Molds 1 2 3, Fig. 7, for the rivets R, are constructed with a transverse indentation, *i*, in the top of the lower part of each mold, to receive the strip end upon which the rivet is to be fast. This strip end is inserted, as shown at 2, Fig. 7, with the rivet-hole *a* in line with the ingate of the mold. The lead is then poured, filling the head portion through said rivet-hole *a*, and forming the stem of the rivet in an extension of the ingate, as shown at 3, Fig. 7. A large number of rivets will be simultaneously cast, as in ordinary molds, and the improved seals can thus be very readily and cheaply manufactured.

I do not claim, broadly, a seal having a sheet-metal shackle and a soft-metal rivet united in the act of casting the latter, as I am aware that this has before been proposed. Neither do I claim herein the method of casting the rivets above specified; but I reserve the right to claim this in another application for patent to be filed hereafter.

I claim as new—

A tin-and-lead seal composed of a strip having rivet-holes in its respective ends and a rivet fast thereon having a stem which tightly fills one of said rivet-holes and is loosely fitted to the other, substantially as herein specified.

EDWARD J. BROOKS.

Witnesses:

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L. FARLEY HOVEY.