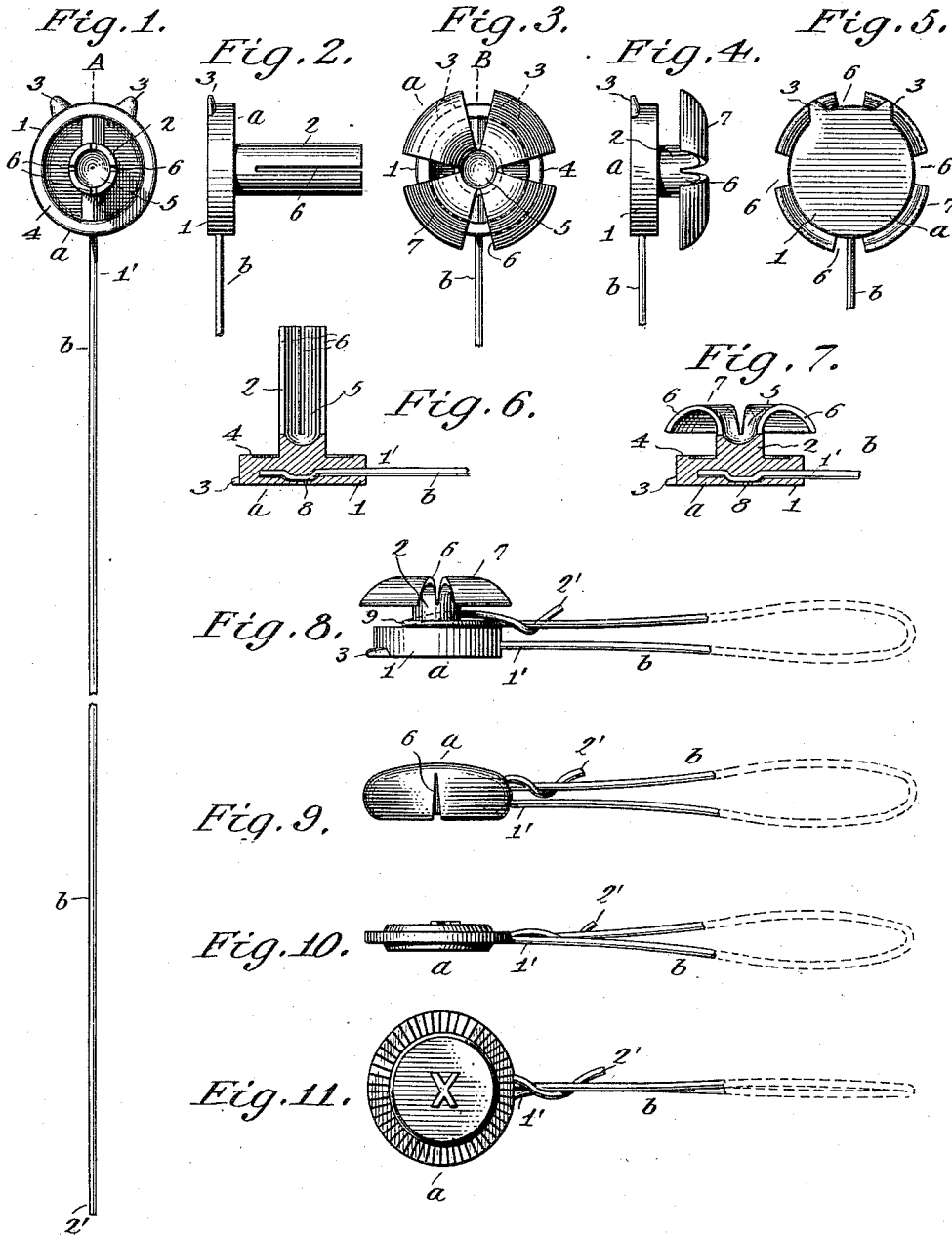


E. J. BROOKS.
PRESS FASTENABLE SEAL.
APPLICATION FILED APR. 18, 1911.

995,321.

Patented June 13, 1911.



WITNESSES

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EDWARD J. BROOKS, OF EAST ORANGE, NEW JERSEY.

PRESS-FASTENABLE SEAL.

995,321.

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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 Press-Fastenable Seals, of which the following is a specification.

This invention relates to seals of lead and wire designed and adapted to be securely fastened in the act of stamping or pressing them in a suitable seal press.

It relates especially to that type of such seals in which the leaden seal part is preliminarily fastened on one end of a flexible wire shackle at the factory, and the other end of the shackle is looped around a stem-portion of the seal part immediately preceding and preparatory to the press-fastening operation. Owing to the rapidity with which such work must be done a single more or less loose loop is all that can be relied on, and it has been difficult and sometimes impossible to cover such loop at the press-fastening operation sufficiently to render the seal safe against the undetectable release of said looped shackle and, on which the security of the seal depends.

The present invention consists in an improved seal of said type, characterized by an umbrella-shaped head, on the seal part, having radial slits, and adapted to envelop the edges of the subjacent portions of the seal part, so as to insure inclosing and securely fastening the loop of the shackle wire, as hereinafter more particularly described and claimed.

The leading object of the invention is, as above set forth, to insure the safety of the press-fastened seal against undetectable violation.

Other objects will be set forth in the general description which follows.

A sheet of drawings accompanies this specification, as part thereof.

Figures 1 and 2 represent face and edge views respectively of the improved seal as it appears before being headed; Figs. 3, 4 and 5 are respectively face, edge and back views of the completed seal as it leaves the factory; Fig. 6 represents a section through the seal part on the line A, Fig. 1; Fig. 7 represents a section through the seal part on the line B, Fig. 3; Fig. 8 represents an edge view of the seal showing the free end of the shackle looped around the stem of the seal part preparatory to press-fastening; Fig. 9

is an edge view representing an intermediate stage of the press-fastening operation; and Figs. 10 and 11 represent respectively edge and face views of the press-fastened seal.

Like reference characters refer to like parts in all the figures.

The improved seal is composed of a compressible seal part, *a*, of lead or an equivalent soft-metal or alloy hereinafter referred to as "lead;" and a flexible shackle, *b*, of suitable wire, preferably single and of soft iron. The seal part *a* is cast fast on one end of the shackle *b* with the external shape represented in Figs. 1, 2 and 6; and it comprises a disk and a stem, shown respectively at 1 and 2, as its main portions. The disk 1, which remains intact until the press-fastening operation, is preferably cast as shown with a pair of horns, 3, to center the seal part between the dies of the seal press, and with a marginal flange, 4, adapted to receive a proper loop of the free end of the shackle *b* within it; the whole, apart from said horns 3, being concentric with the stem 2; and the latter is cast with a deep axial recess, 5, and is provided at the same operation, or subsequently by sawing, with longitudinal slits, 6, four, more or less, in number.

Placed beneath the reciprocating die of a stamping machine the stem 2 of the seal part *a* is finally made to form an umbrella-shaped head, 7, through which the slits 6 extend radially, as shown in Figs. 3, 4, 5, 7 and 8, such head being of greater diameter than the disk 1, and having a central depression formed by the expanded inner end of the stem recess 5, so as to be adapted to envelop the edges of the disk in the press-fastening operation, as represented by Fig. 9.

The shackle *b* is cut of suitable length from a reel of wire; and of its ends 1' and 2' the former is provided with suitable anchoring means, 8, Figs. 6 and 7, preferably in the form of a flat U-shaped bend near the extremity of the wire.

Preparatory to the press-fastening operation the "free end" 2' of the shackle, as heretofore, is wrapped one or more times around the stem 2 to form a loop, 9, Fig. 8, between the disk 1 and the head 7. The seal part is then inserted between the dies of a seal press, as is customary, and the first effect of the dies on the improved seal part, in partly flattening the same, is to cause the re-curved petals or sectors of the head 7 to curl inward

around and under the edges of the disk 1, as shown in Fig. 9, and thus to inclose therewith the loop 9, however loose the latter may be, so that when the press-fastening operation is completed, as represented by Figs. 10 and 11, the shackle loop will be so fully inclosed as to preclude releasing the looped end of the wire from the lead without assured detection. In the production of said first effect, said central depression, shown at 5 in Fig. 7, lends itself to the curling of the sectors of the head 7, as above described by means of the substantially flat-faced die indicated by its impression in Figs. 10 and 11. Said depression is therefore of functional importance.

Either or both faces of the pressed seal part *a*, Figs. 10 and 11, will be provided in the seal press as heretofore with any desired distinguishing marks or lettering, represented by "X" in Fig. 11.

The shape of the pressed seal part or style of pressing represented in Figs. 10 and 11 may, of course, vary as different users of the seals may prefer; 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. An improved press-fastenable seal of lead and wire having its seal part of lead constructed with a disk portion and a hollow and longitudinally slitted stem portion, the latter provided with an umbrella-shaped head divided radially by the slits of

the stem into recurved sectors and adapted to embrace and inclose the edges of said disk portion at the press-fastening operation.

2. An improved press-fastenable seal composed of a compressible seal part of lead and a flexible shackle of wire; said seal part being constructed with disk and stem portions, the latter provided with an umbrella-shaped head having radial slits and of sufficient diameter to embrace said disk at the press-fastening operation, and said shackle having one end preliminarily fastened in said disk and its other end adapted to be provided preparatory to the press-fastening operation with a loop surrounding said stem between said disk and said head and inclosable with the edges of said disk by said head.

3. The combination, in a press-fastenable seal, of a compressible seal part of lead having disk and stem portions, the latter provided with an umbrella-shaped head adapted to embrace the edges of said disk at the press-fastening operation and having radial slits, recurved sectors and a central depression, and a flexible shackle of wire one end of which is preliminarily fastened in said disk, the other end being adapted to be loosely looped around said stem between said disk and said head preparatory to the press-fastening operation, substantially as hereinbefore specified.

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Witnesses:

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