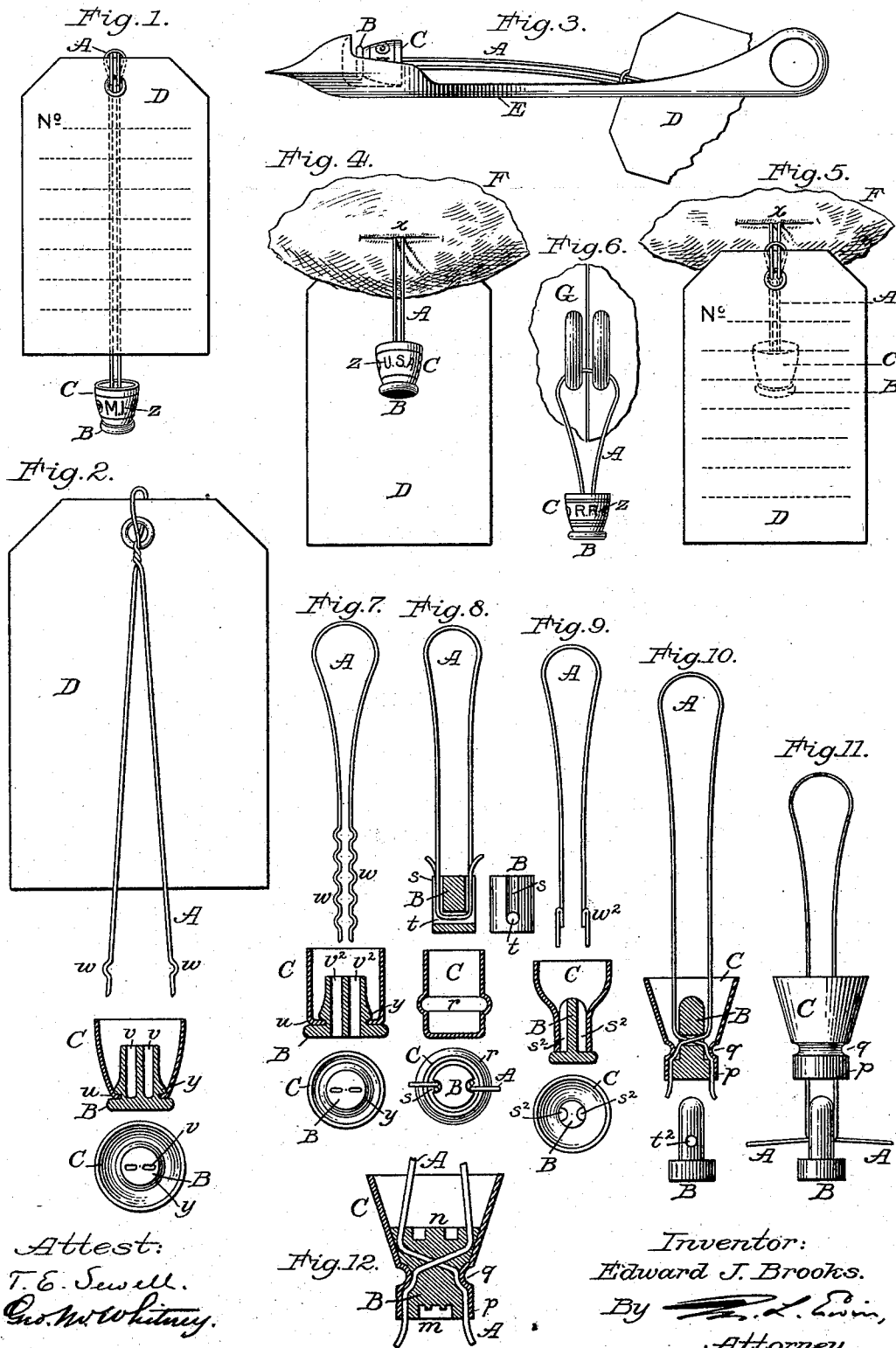


(No Model.)

E. J. BROOKS.
SEAL.

No. 503,645.

Patented Aug. 22, 1893.



UNITED STATES PATENT OFFICE.

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SEAL.

SPECIFICATION forming part of Letters Patent No. 503,645, dated August 22, 1893.

Application filed February 17, 1893. Serial No. 462,746. (No model.)

To all whom it may concern:

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

This invention relates primarily to seals for use in connection with tags to mark meat which has been officially approved for export
10 by the meat-inspectors of the Agricultural Department; but it may be embodied in seals for securing car-door fastenings and for other purposes.

The invention consists in certain combinations of parts, as hereinafter set forth and claimed; its objects being the production of light and easily identified seals adapted to be made very small or of any required size, and combined seals and tags which can be quickly
20 applied to meat and which cannot be retracted through the meat without detection.

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

Figure 1 of the drawings is an elevation of
25 a combined seal and tag in which the tag is looped to the seal after the latter is pressed. Fig. 2 is a back view, partly in section, and with an appended top view of the seal part, showing the tag preliminarily attached to the shackle of an otherwise similar seal and tag.
30 Fig. 3 is an elevation of a "needle" used for applying such seals and tags to meat after the parts are united. Figs. 4 and 5 are face and back views of a seal and tag so applied.
35 Fig. 6 shows a like seal applied to car-door staples. Fig. 7 shows an elevation of the shackle, a section through the seal part and a top view of such seal-part of a modified seal. Fig. 8 shows an elevation of the shackle, sectional and side views of the "rivet," a section
40 through the cup, and a sectional top view of the loosely united parts of another modified seal. Fig. 9 shows an elevation of the shackle, a section through the seal part and a top view of such seal-part of another modified seal.
45 Fig. 10 shows a sectional elevation and an appended side view of the rivet of another modified seal. Fig. 11 is an elevation illustrating the mode of uniting the parts of the
50 seal last named preparatory to pressing; and

Fig. 12 represents a magnified section through this seal after it is pressed.

Like letters refer to corresponding parts in all the views.

The improved seal is adapted to be made
55 of various forms, as illustrated by the drawings. In each form the ends of a flexible shackle A, preferably of thin single wire, are united and secured against fraudulent separation without detection by means of a "seal-
60 part" composed of a compressible plug or "rivet" B, which may be of lead, and a thimble or "cup" C having a wide open end which remains open and surrounds the shackle after the seal is pressed, and which incloses and
65 amplifies said rivet; and in each form a tag D of suitable "paper" or other approved material is or may be attached to the shackle, as in Figs. 1 to 5.

The tags D may be printed or otherwise
70 provided with all necessary explanations, and such verifications, &c., as numbers, signatures, stamps and the like, and may be as large or as small as may be preferred.

The cups C are intended to be struck up
75 from tin or the like printed in the sheet, so as to bear initials, numbers or other distinguishing marks, as represented at *z* in Figs. 1, 4 and 6. They may instead be plain, or simply of distinguishing colors, as represented in
80 Fig. 11. The plain cup shown in this figure at C may be of any color.

The rivets B, owing to their combination with such cups, may be of minimum weight. They may be preliminarily attached to the
85 cups, or fastened therein, by a partial pressing, which forms a retaining bulge *y*, as in Figs. 2 and 7, or simply tightly fitted in some shapes, for the same purpose, as in Fig. 9; or the parts may simply be adapted to be united
90 at the factory or where like care can be taken as in Figs. 8 and 10 to 12.

Ordinarily the improved seals will be pressed, so as to permanently unite the shackles and seal-parts, at the factory, when
95 the seals are to be combined with tags for marking inspected meat; and the tags may as aforesaid be looped to the shackles either subsequently as in Figs. 1 to 5 or preliminarily as in Fig. 2.

The united or combined seals and tags are applied to the meat with as much speed as may be necessary, by means of a "needle" E, Fig. 3, the recessed point of which admits and masks the seal-part, as in the figure, and carries it through the meat F, Figs. 4 and 5. The slit x cut in the meat by the needle is re-closed by its elasticity, and, as the meat soon becomes rigid, cannot be reopened. The shackle is made short enough so that the tag, after the seal is so applied, cannot be un-looped from the shackle if so attached; and the tag could not be drawn through the meat without so defacing it, or so cutting the meat, as to insure detection. The retraction of the seal-part through the seal without detection is effectively prevented by its open-ended cup, which would unavoidably receive and retain within itself some particles of the meat, if so withdrawn.

As used by railway or express companies and others, the shackles A would be passed through a pair of car-door staples G Fig. 6 or the like, and the seal-part would then be applied to the shackle-ends and pressed in customary manner.

All the seals represented by Figs. 1 to 6 are of one and the same construction, for which see Fig. 2. Both ends of each shackle A have anchoring bends w , the rivets B, of customary rivet-shape, have pockets v closed at bottom to admit such shackle-ends, and the cups C have internal flanges u at bottom to coact with said bulges y by which the rivets and cups are preliminarily united. In the seal represented by Fig. 7 each end of the shackle A has a number of such anchoring bends w , or it may be of the kind set forth in my specification forming part of Patent No. 323,849, dated August 4, 1885, the rivet B has through holes v^2 fitted to the shackle ends, and the rivet B and cup C have respectively the bulge y and the flange u above described. In the seal represented by Fig. 8 the shackle A is plain throughout; the rivet B is headless, and has a transverse hole t and longitudinal grooves s at its sides within which the respective shackle-ends are disposed as in Fig. 8; and the cup C is closed at bottom and provided with a circumferential groove r into which the lead flows when the rivet is pressed. The seal represented by Fig. 9 has the ends of its shackle A provided by way of example with bent-up anchoring enlargements w^2 , such as are shown at b in said Patent No. 323,849, and there described; the sides of the stem of its rivet B are provided with grooves s^2 to admit the shackle-ends, and the lower

end of the cup C is simply contracted so as to fit said stem tightly. The seal represented by Figs. 10, 11 and 12 has its shackle A of plain thin wire; its rivet B, of customary rivet-shape, has a transverse hole t^2 in its stem through which the shackle ends are passed as in Fig. 11, after which the cup C is drawn down over the rivet as in Fig. 10; and the cup has a circumferential groove q and a depending rim p , which latter surrounds the head of the rivet and coacts therewith to secure the wire preliminarily and after it is pressed, as in Figs. 10 and 12. All these seals are "pressed" by compressing the rivet B between suitably shaped plier-ends or the like, and stamping either or preferably both of its ends at the same time with distinguishing marks $n m$ Fig. 12, of any description, such as the initials or numbers of inspection stations, the station numbers of railways, or the like.

The cup C is in no case pressed at all, and its wide open end remains open of course after the seal is pressed for the purposes hereinbefore set forth, viz: to amplify the rivet as to size, and in the case of meat seals to insure detection in case the seal-part is pulled through the meat.

Various forms of cups are shown to illustrate their adaptation to be thus diversified for different uses.

The anchoring devices $w w^2$, and other like anchoring devices, may be used interchangeably in the respective seals; 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. In combination with a flexible sealing shackle, a seal-part having a shackle-securing portion which is pressed to fasten the seal, and a cup-shaped portion with a wide open end which remains open and surrounds the shackle above said shackle-securing portion, substantially as hereinbefore specified, for the purposes set forth.

2. A seal composed of a flexible shackle, a compressible "rivet" which secures both ends of said shackle, and a sheet metal cup, interlocked with said rivet, having an open end which remains open after the seal is pressed and surrounds the shackle above said rivet, substantially as hereinbefore specified.

EDWARD J. BROOKS.

Witnesses:

H. L. C. WENK,
N. S. KLINE.