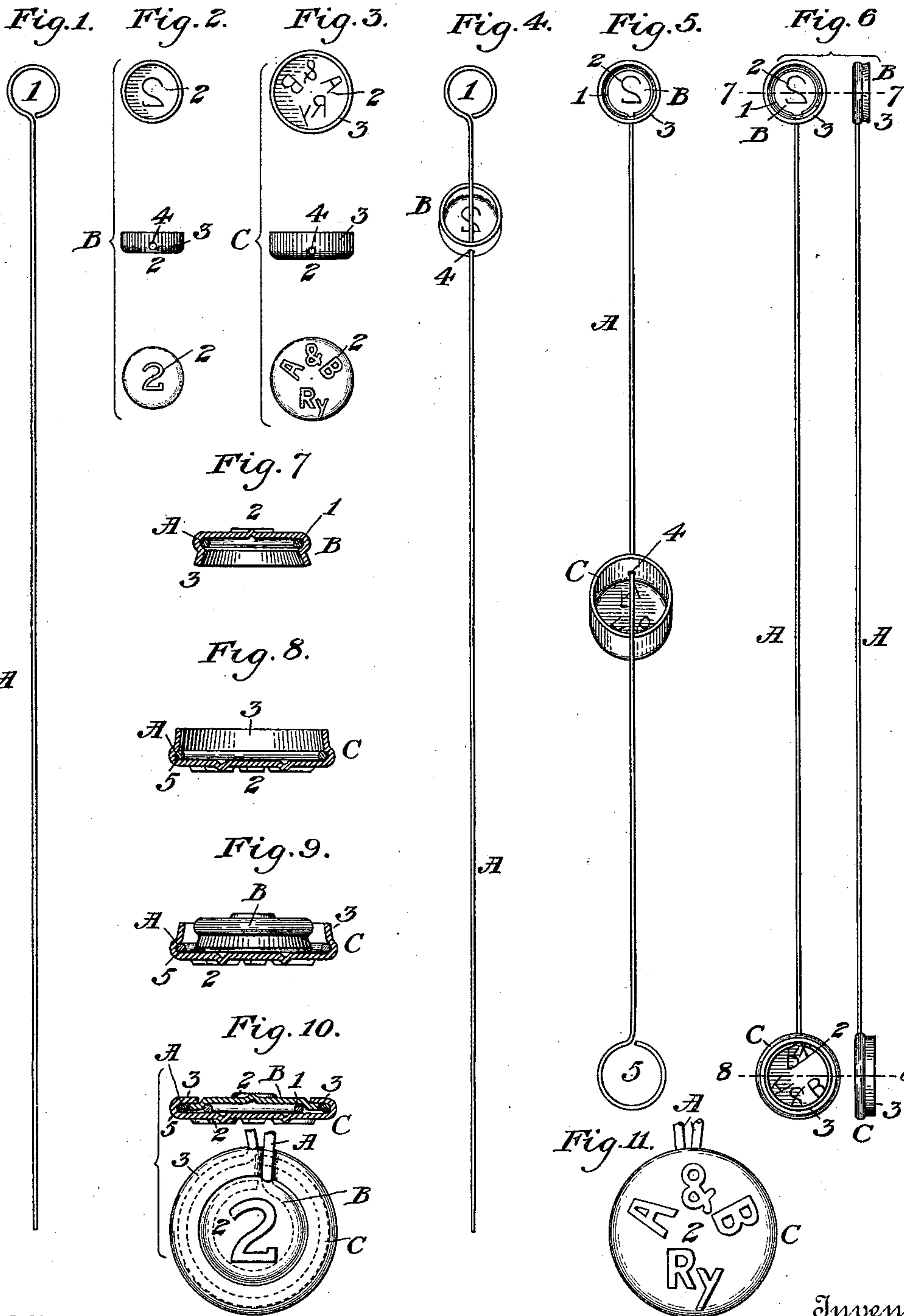


(No Model.)

E. J. BROOKS.
SEAL.

No. 520,390.

Patented May 22, 1894.



Witnesses

L. A. Conner
Geo. M. Whitney.

Inventor

Edward J. Brooks,
by *W. L. Ewing*,
Attorney.

UNITED STATES PATENT OFFICE.

EDWARD J. BROOKS, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO THE
E. J. BROOKS & COMPANY, OF NEW YORK, N. Y.

SEAL.

SPECIFICATION forming part of Letters Patent No. 520,390, dated May 22, 1894.

Application filed March 20, 1894. Serial No. 504,418. (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, the lids of strong boxes, &c., and consists in the combination in such a seal of a flexible shackle-wire having looped ends and a pair of disk-forming cups of sheet-metal wired with the respective shackle-loops the larger cup having an inwardly folding rim which secures the other shackle-end when the seal-press is applied, and in an improved seal composed of such shackle-wire and cups the smaller sheet-metal cup having an outwardly folding rim to interlock with said inwardly folding rim of the cup first named; said cups being conveniently provided with any required lettering in course of manufacture, and having holes or notches in their rims through which the shackle-wire extends, as hereinafter more fully set forth.

The objects of this invention are to securely unite the ends of a shackle-wire without the aid of lead, and to produce a light and relatively inexpensive seal composed wholly of wire and sheet-metal, and at the same time having its seal proper in the form of a lettered disk as is most commonly preferred.

A sheet of drawings accompanies this specification as part thereof.

Figures 1, 2 and 3 of the drawings represent respectively the three parts which are brought together to form the improved seal as preferably constructed, Figs. 2 and 3 including back edge and face views of the respective cups. Fig. 4 illustrates assembling the shackle-wire and smaller cup. Fig. 5 illustrates applying the second cup and completing the shackle-wire. Fig. 6 represents face and edge views of the seal as it leaves the factory. Fig. 7 represents a magnified cross-section on the line 7—7 Fig. 6, and Fig. 8 a magnified cross-section on the line 8—8 Fig. 6. Fig. 9 represents a magnified cross-section through the outer cup, with the inner cup inserted therein, preparatory to the pressing

operation. Fig. 10 represents a magnified cross-section through the seal-disk as fastened and completed by the seal-press, with its reverse, projected from said cross-section; and Fig. 11 represents the obverse of the pressed seal-disk.

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

To form the specific seal represented by Figs. 1 to 11 inclusive, I provide a flexible shackle A, Fig. 1, of suitable wire, having a circular loop 1 at one end, and a pair of disk-forming cups B, C, Figs. 2 and 3, of suitable sheet-metal, which may be taggers-tin, bright tin, brass, or copper, for example; each of the cups being composed of a circular face-portion 2, conveniently and preferably provided with embossed lettering or like marks in process of manufacture, and a substantially cylindrical rim 3 provided with a single perforation 4. Having threaded a cup B over the unlooped end of the shackle A, as in Fig. 4, this cup is wired with said loop 1 of the shackle as in wiring sheet-metal ware, which completes this end of the seal, as at the top in Figs. 5 and 6, the rim 3 being left with a tendency to flatten outward under pressure. See Fig. 7. A cup C is then threaded on said unlooped end of the shackle, and this end is then provided with a circular loop 5 somewhat larger than said loop 1, as in Fig. 5, and said cup C is wired with said loop 5, its rim 3 being left with a tendency to fold inward under pressure. See Fig. 8. This completes the manufacture of the seal as an article of commerce; its appearance as it leaves the factory being represented by Fig. 6 as aforesaid.

After passing the smaller cup B through ordinary car-door staples or the like, the rim 3 of this cup B is inserted within that of the cup C, as in Fig. 9, and a suitable seal-press is applied which simultaneously flattens both cups, causing said rim 3 of the cup B to flatten outward, and said rim 3 of the cup C to fold inward upon said rim of the cup B, making the pressed seal appear in cross-section as at the top of Fig. 10, with the distinguishing marks of the respective cups exposed at the respective sides of the disk as in Figs. 10 and 11. The mark or marks on one side of the disk may conveniently indicate the num-

ber of the sealing station, as in Fig. 10, while those on the other side indicate the ownership of the seal, as in Fig. 11, but such marks may be of any preferred description, or may
5 be omitted without departing from this invention, the respective parts of the seal being otherwise sufficiently difficult to duplicate in order to insure the detection of any violation of the seal.

10 The cups B and C may be notched instead of being provided with perforations as above described, in order that the shackle-wire A may be provided with both of its loops preliminarily, and the manufacture of the im-
15 proved seals otherwise facilitated, but with some loss of security as compared with the construction above described. The two cups may if desired be made respectively of different metals of contrasting colors to facilitate
20 the recognition of particular seals; different kinds of wire may also be employed; the improved seals may be made of any desired size;

and other like modifications will suggest themselves to those skilled in the art.

Having thus described the said improve- 25
ment, I claim as my invention and desire to patent under this specification—

1. A seal composed of a flexible shackle-
wire having loops of different sizes at its re-
spective ends and a pair of disk-forming cups 30
of sheet-metal wired with the respective loops, the larger cup having an inwardly folding rim for fastening the seal, substantially as hereinbefore specified.

2. An improved seal composed of a shackle 35
of flexible wire having loops at its respective ends and a pair of disk-forming cups of sheet-metal wired with said loops and having interlocking rims, substantially as hereinbefore specified.

EDWARD J. BROOKS.

Witnesses:

JAS. L. EWIN,
GEO. M. WHITNEY.