

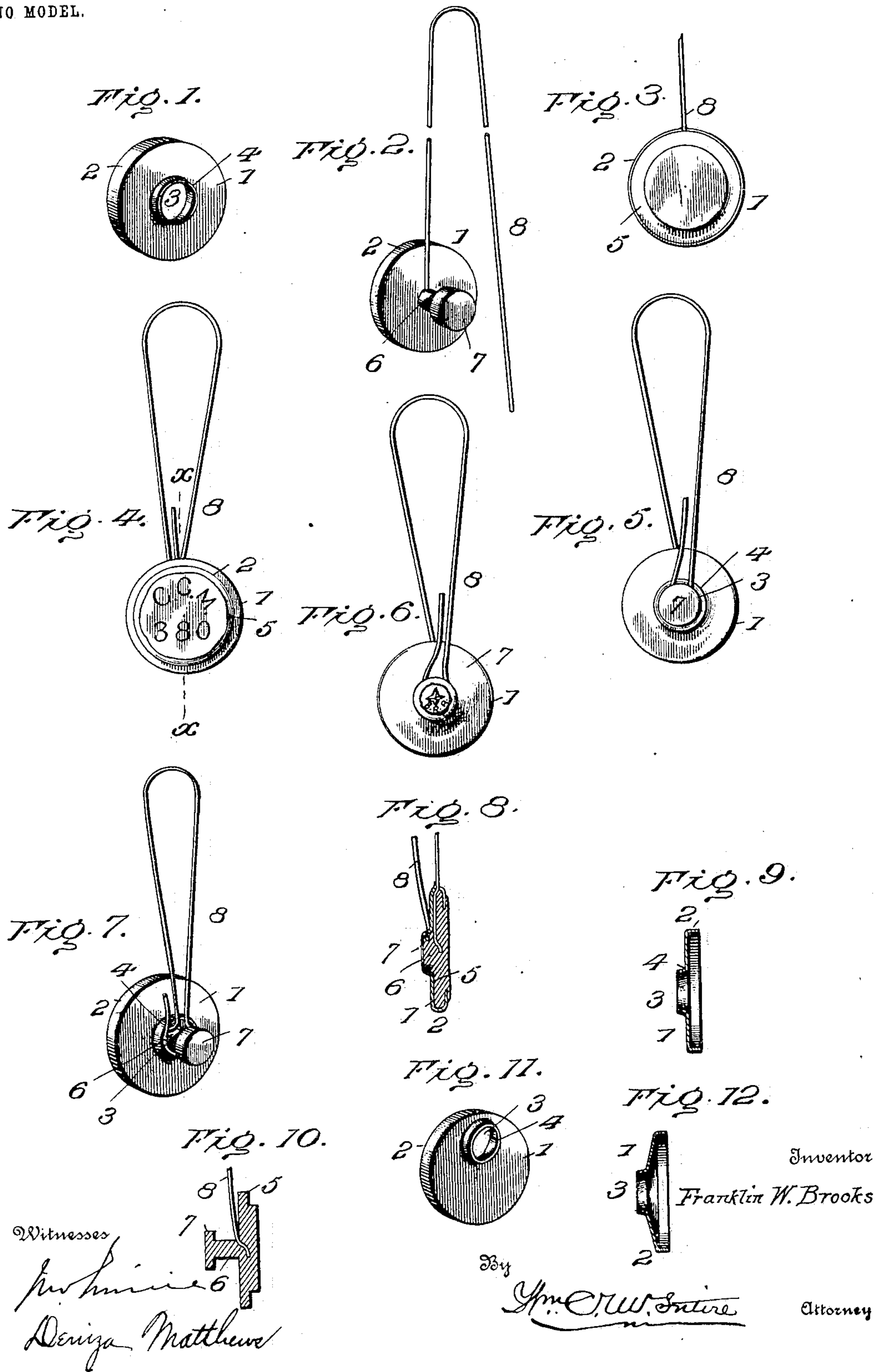
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PATENTED MAY 3, 1904.

F. W. BROOKS.
SEAL.

APPLICATION FILED JAN. 7, 1904.

NO MODEL.



UNITED STATES PATENT OFFICE.

FRANKLIN W. BROOKS, OF WASHINGTON, DISTRICT OF COLUMBIA.

SEAL.

SPECIFICATION forming part of Letters Patent No. 758,896, dated May 3, 1904.

Application filed January 7, 1904. Serial No. 188,131. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN W. BROOKS, a citizen of the United States, residing at Washington city, in the District of Columbia, have
5 invented certain new and useful Improvements in Seals; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use
10 the same.

My invention relates to certain new and useful improvements in railroad-seals, and particularly to that class in which a body of lead or other ductile metal is combined with and
15 partially inclosed by a sheet-metal sheath—such, for instance, as is shown and described in Letters Patent No. 595,989, granted to me on the 21st day of December, 1897. In this class of seals suitable marks or characters to
20 designate the particular railroad by which the seal is used are impressed upon the disk-face of the sheet-metal sheath. The bail-wire has one end cast in the soft-metal body, and the free end of the wire is twisted or wound about
25 the neck between the body and head of the soft-metal portion, as fully described in the Letters Patent referred to, a flange or collar at the base of the neck being provided and constituting a recess within which the bail-
30 wire is concealed and locked when the head and neck are compressed by the press or sealing-tool used at any given station to compress the seal and to impress the station-marks upon the exposed head of soft metal. In this class
35 of seals it is necessary, first, that the marks designating the particular railroad using the seals should be impressed upon the disk-face of the sheet-metal sheath or housing and, second, that the soft metal confined within the
40 sheet-metal sheath should be of such proportion and quantity as to constitute a safe anchorage for the two ends of the bail-wire and at the same time to serve for the legible impression therein of the usual station marks or characters. This construction necessarily involves
45 the time and expense of first impressing the name or initials of the railroad upon the sheet-metal sheath and the employment of a comparatively large quantity of soft metal within
50 which to anchor the ends of the bail-wire and

to receive in legible condition the station mark or indication.

My invention has for its object to dispense with the time and labor of impressing the railroad mark or designation upon the sheet-metal
55 sheath, to reduce to a great extent the quantity of soft metal within which to anchor the ends of the bail-wire, to secure a firm lock for the ends of the bail-wire, a broad uninterrupted area of soft metal to receive the mark to des-
60 ignate railroad ownership, a reduced but sufficient area to receive the station-designation and to enable both the railroad and station designations or marks to be simultaneously
65 impressed by an ordinary press or sealing-tool, all as will be hereinafter more fully explained.

To those engaged in the manufacture and sale of railroad-seals it is well known that the greatest cost involved in the manufacture is
70 due to the variety and number of steps employed to produce the product and also and more particularly to the amount of soft metal employed in the construction, any considerable economy in the use of the soft metal frequently, if not usually, constituting a full
75 measure of profit as between competing seals.

In order that those skilled in the art to which my invention appertains may know how to make and use the same and fully appreciate its advantages, I will proceed to describe
80 the construction and manner of using my improved seal, referring by numerals to the accompanying drawings, in which—

Figure 1 is a perspective view of the sheet-metal sheath or cup, within which the soft-
85 metal body is located. Fig. 2 is a similar view of the soft-metal body with one end of the wire bail cast therein and the other free and adapted to be wound or twisted about the neck. Fig. 3 is a plan view of what I denomi-
90 nate the "rear" face of the seal before compression of the same by a sealing-tool or press. Fig. 4 is a similar view after the seal has been subjected to the action of the press or sealing-tool and showing marks or characters im-
95 pressed upon the larger area of the soft-metal body to designate the name of a railroad or ownership. Fig. 5 is a plan view of the reverse side and before compression. Fig. 6 is a similar view after compression and showing
100

station marks or designations impressed upon the smaller area of the soft-metal body. Fig. 7 is a view similar to Fig. 2, but showing both ends of the bail-wire locked on one side instead of on opposite sides, as shown at Fig. 2. Fig. 8 is a central cross-section taken on the line $x\ x$ of Fig. 4 and showing clearly how the free end of the bail-wire after having been twisted or wound around the neck of the soft-metal body is firmly locked within the sheet-metal sheath and concealed by the compressed head of the soft-metal body. Fig. 9 is a central cross-section of the sheet-metal sheath adapted to receive the soft-metal body. Fig. 10 is a similar view of the soft-metal body with one end of a bail-wire cast therein. Fig. 11 is a view similar to Fig. 1, but showing the opening or passage in the sheet-metal sheath, and through which the head of the soft-metal body is passed, located eccentrically; and Fig. 12 is a sectional view of a modified form of the sheet-metal sheath.

All of the several figures of the drawings are made on enlarged scale in order that the peculiar details of construction may be more readily seen.

Similar reference-numerals indicate like parts in the several figures of the drawings.

1 is a sheet-metal (tin) cup or sheath with a peripheral flange 2 and hole or passage 3, preferably in the center and surrounded by an inwardly-tapering flange 4.

The body of the seal is composed of a comparatively thin body portion 5, of soft metal, with a neck 6 and a head 7.

The bail-wire 8 has one end cast in the neck and the other end free and adapted to be coiled or wound around the neck in any of the ways well understood by the users of seals, or said bail-wire may be entirely separate from the soft-metal device and both ends adapted to be located around the neck 6.

When the sheet-metal and soft-metal parts of the seal have been made in any desired or satisfactory manner, they are assembled as follows: The head 7 and neck 6 are passed through the opening or passage 3 of the sheet-metal sheath 1 and the body 5, located within the peripheral flange 2, which is then turned down in any suitable manner to hold and confine the body 5. When one end of the bail-wire is cast in the neck 6, the bail may be passed through the opening or passage 3, so that both legs of said bail shall be on one side of the seal, or the bail may be bent and passed through a nick in the periphery of the body 5, so that one leg of the bail when the seal is compressed shall be on each side. After the sheet-metal sheath has had its peripheral flange 2 compressed upon the soft-metal body 5 to securely bind the same in place and the seal is thus ready for use the free end of the bail-wire 8 is wound closely around the neck 6, so that its coil or coils (according as one or

more coils may be made) shall lie within the peripheral boundary of the flange 4 of the opening or passage 3, and the seal being then subjected to compression between dies of any ordinary press, one of said dies being formed with characters or marks designating the railroad and the other provided with marks or characters to designate a particular station. The act of compression breaks down the soft-metal neck 6 and carries with it the coil or coils of the bail-wire below the outer peripheral edge of the flange 4, and the continued compression of the soft metal expands the coil or coils of the bail-wire within the tapered or enlarged area of the flange 4, and the latter is then flattened down over said coil or coils to securely lock the same in position below the head 7, which at the same time has impressed upon it the station mark or marks, while the opposing die impresses upon the broader area of the body portion 5 the mark or marks which designate the particular railroad by which the seal is used.

While I prefer the construction thus described, and which, as illustrated at Fig. 1 and other figures, involves a sheet-metal sheath with the beveled flange 4 rising from a flat surrounding surface, the same results in a modified form may ensue by making the sheet-metal sheath crown shape, as shown at Fig. 12, either with or without the flange 4, surrounding the opening or passage 3, the genus in both the forms shown in Fig. 1 and Fig. 12 being that the sheath is provided with an opening or passage for the head and neck of the soft metal, and a space exists between the inner surface of the body 5 and the crown or disk portion of the sheath, within which the coils of the wire surrounding the neck 6 may be expanded and securely locked.

While it is the purpose of my improved seal to avoid the necessity of impressing upon the sheet-metal portion any marks or characters, it will of course be readily understood that, if thought desirable for any reason, such marks or characters may be made upon that portion of the sheet metal surrounding the flange 4.

The body 5 of the soft metal is preferably made thinner at its periphery, as shown, in order that the peripheral flange 2 of the sheet-metal sheath or cup 1 may be more readily turned down upon the body, and said body may be thus thinned at the locality referred to by either a well-defined step, or it may be slightly beveled to produce the same result.

From the construction shown and described it will be seen that the sheet-metal sheath or cup constitutes a strong reinforce for the thin soft-metal body and also firmly and securely locks the ends of the bail wire against fraudulent removal and that while great economy in weight of the soft-metal body is accomplished yet at the same time a sufficiently-extended area is presented for legible impres-

sion of suitable designating-marks and that said area is entirely uninterrupted by the presence of any portion of the bail-wire.

Having described the construction and advantages of my improved seal, what I claim as new, and desire to secure by Letters Patent, is—

1. A seal consisting of a sheet-metal cup or sheath having a peripheral flange and an opening or passage through the body portion surrounded by a tapered flange; a soft-metal member formed with a body portion adapted to lie within and to be secured by the peripheral flange of the sheet-metal cup or sheath, and with a neck and head adapted to pass through the opening in the sheet-metal cup or sheath; and a bail-wire secured to the soft-metal member, and adapted to be locked by compression beneath the flange surrounding the opening in the sheet-metal cup, substantially as hereinbefore set forth.

2. A seal consisting of a sheet-metal cup or sheath having a peripheral flange on one side and a passage or opening through the body or disk portion, and a soft-metal member having at one end an enlarged head adapted to be located within the peripheral flange of the sheet-metal cup or sheath, a smaller head at

the opposite end and adapted to pass through the opening in the sheet-metal cup or sheath, and a reduced shank or stem intermediate the two heads to receive the ends of a shackle-wire, said soft-metal member adapted to be compressed on opposite sides of the sheet-metal cup or sheath, and to lock the ends of the shackle-wire, substantially as shown and described.

3. A seal consisting of a sheet-metal cup or sheath having a passage or opening through the same; a soft-metal member consisting of a thin flat body portion, a neck and head, a bail-wire secured to the soft-metal member, with one end coiled about the neck of the same and adapted to be confined by compression of the neck and head of the soft-metal member between the sheet-metal cup or sheath, and the interior surface of the flat body portion of the soft-metal member, substantially as hereinbefore set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANKLIN W. BROOKS.

Witnesses:

D. G. STUART,

W. M. HOLLIS.