E. J. BROOKS.
Seal-Locks.

No. 203,996. Patented May 21, 1878.

Fig. 1.

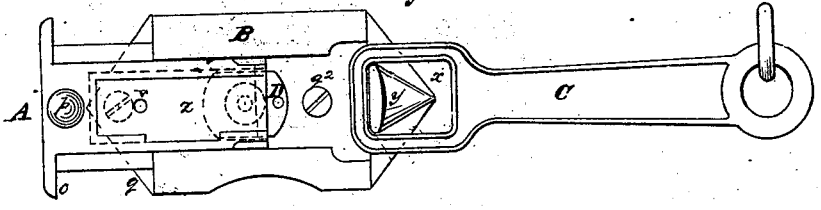


Fig. 2.

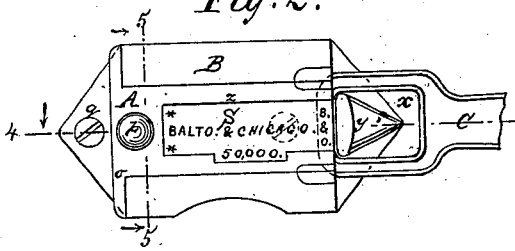


Fig. 3.

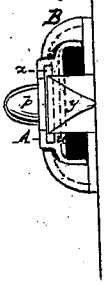


Fig. 4.

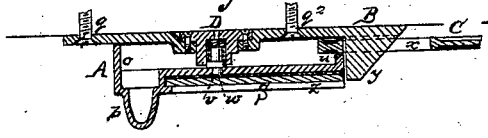


Fig. 5.

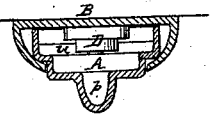


Fig. 6.

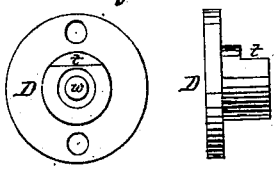


Fig 7.


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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN SEAL-LOCKS.

Specification forming part of Letters Patent No. **203,996,** dated May 21, 1878; application filed April 8, 1878.

*To all whom it may concern:*

Be it known that I, EDWARD J. BROOKS, of the city and county of New York, in the State of New York, have invented a new and useful Improvement in Seal-Locks, of which the following is a full, clear, and exact specification.

This invention relates to the use of seals composed wholly or in part of rigid and frangible material.

The present improvement is a seal-lock having a sliding bolt with a seal-chamber in its exposed face, the seal being inserted at one end of said bolt, which end subsequently abuts against a stud to fasten a hasp thereon, and said stud retains the seal, while an automatic detent behind the seal prevents the retraction of the bolt until said seal is destroyed.

Said lock is preferably composed exclusively of said sliding bolt, a housing supporting said stud, and the said detent, which projects through the back of said housing, in connection with a swinging hasp to engage with said stud, as aforesaid.

The improved lock is adapted to be securely attached to the side of a railway freight-car or the like, and is of exceeding simplicity and compactness, while it affords ample security, and can be made of any required strength.

Figure 1 of the accompanying drawing is a face view of a seal-lock illustrating this invention, the bolt being shown in retracted position. Fig. 2 is a face view of the same sealed and closed. Fig. 3 is an end view of the same. Fig. 4 is a longitudinal section on the line 4 4, Fig. 2. Fig. 5 is a transverse section on the line 5 5, Fig. 2; and Fig. 6 is a face view of the automatic detent; and Fig. 7 is a side view of the parts of the said detent separated on a larger scale.

Like letters of reference indicate corresponding parts in the several figures.

The two main parts of this lock are a sliding bolt, A, and its guide or housing B, which are adapted to be cast complete of malleable iron or any suitable metal.

The sliding bolt A has an undercut seal-chamber, *z*, in its outer face, with an opening at the inner end of the bolt to admit the seal S. This opening is closed or crossed in the locking position of the bolt by a stud, *y*, on the face of the housing B, which stud also occupies the slot *x* of a swinging hasp, C, the open end of the bolt abutting against said stud in front of the hasp. The bolt is held in said locking position by the spring-projected locking-pin *w* of a detent, D, which occupies a circular opening in the back of said housing, the end of said locking-pin *w* occupying an aperture, *v*, in the back of the seal-chamber *z*.

The aperture *v* being covered by the central portion of the rigid seal S, access to the locking-pin *w* is impossible until said seal is broken and destroyed. Said locking-pin can then be pushed back by a key-pin, and the bolt thus released. The movement of the latter in turn from the position represented in Figs. 2 and 4 to that represented in Fig. 1 releases the hasp and admits a new seal to the seal-chamber.

Owing to the preferred horizontal position of the bolt as represented, the seal can be thus left in place, if desired, for any length of time preliminary to locking the hasp, so as to facilitate the work of sealing many locks, an inspector subsequently seeing that the seals are all right and the bolts securely locked.

Rectangular seals, made rigid and frangible by protectors of ordinary window-glass, with the seals proper of printed paper securely cemented to the backs of the glass protectors, are preferred, provision to be made, if desired, by an aperture or the like in the paper of each seal, for seeing the locking-pin therethrough when the bolt is locked. This variety of the described class of seals is not, however, considered essential to, nor is it claimed as a part of, the present invention.

The detent D, besides its primary function, operates to prevent the separation of the parts A B while said detent is in place, the bolt A having a stop-flange, *u*, to engage with the extended shell of the detent, without strain to the locking-pin, and said extended shell serves also to protect said locking-pin against manipulation through openings in the housing.

The details of the detent D are shown in Figs. 4, 6, and 7. Its shell has a flat surface, *t*, as its inner end, which engages with said stop-flange *u*, and a circular flange in its outer end, which fits a corresponding seat in the back of the housing B, said circular flange having holes for two countersunk screws,

which are tapped into said seat, as shown in in Fig. 4. An axial bore of proper diameter, extending outward from the inner end of the shell, accommodates a short spiral spring, *s*, and this spring presses against a flange, *r*, on the locking-pin *w*.

The detent-shell and locking-pin may be cast complete of malleable iron or any preferred metal, and the spring may be of steel or brass wire. The detent may be riveted in if preferred; but access can only be had thereto by removing the lock.

The housing B is provided with a perforated flange, *q*, at its rear end, to receive an attaching-screw, and one or more additional screw-holes, $q^2$, are provided inside, so that one or more of the attaching-screws will be covered and protected by the seal in the locking position of the bolt. Ordinary wood-screws can consequently be used for attaching the lock.

The bolt A has a knob, *p*, on its face, by which to manipulate it, and a flange, *o*, at its rear end, to close the matching end of the housing B. The other end of the housing is contracted somewhat, so as to be filled by the hasp C. The flange at the face of the seal-chamber is cut away at bottom, so that particles of glass can be readily removed, and the housing is notched at bottom, as shown, to provide escape for dust or water which may find access to the interior.

A pair of perforations or a pair of perforated lugs may be added to the exterior of the bolt and to the case, to provide for securing the sliding bolt by means of lead and wire seals.

The following is what I claim as new and of my own invention, and desire to secure by Letters Patent, namely:

1. A seal-lock having a sliding bolt with a seal-chamber in its outer face and an opening at one end to admit a frangible seal to said chamber, in combination with a fixed stud, against which said open end of the bolt abuts, to fasten a hasp thereon and to retain said seal, and an automatic detent for holding said bolt in locking position, said detent being located behind said seal when said bolt is locked, so as to be inaccessible until said seal is broken.

2. A seal-lock composed of a sliding bolt having a seal-chamber in its outer face and an opening at one end to admit seals to said chamber, a housing having guide-flanges to embrace the edges of said bolt and a stud against which the open end of said bolt abuts, and an automatic detent attached to said housing, to prevent the retraction of said bolt until the seal is broken, in combination with a hasp engaging with said stud beneath said open end of the bolt.

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