

No. 777,738.

PATENTED DEC. 20, 1904.

F. J. LERCH.
CAR DOOR FASTENER.
APPLICATION FILED JUNE 27, 1904.

NO MODEL.

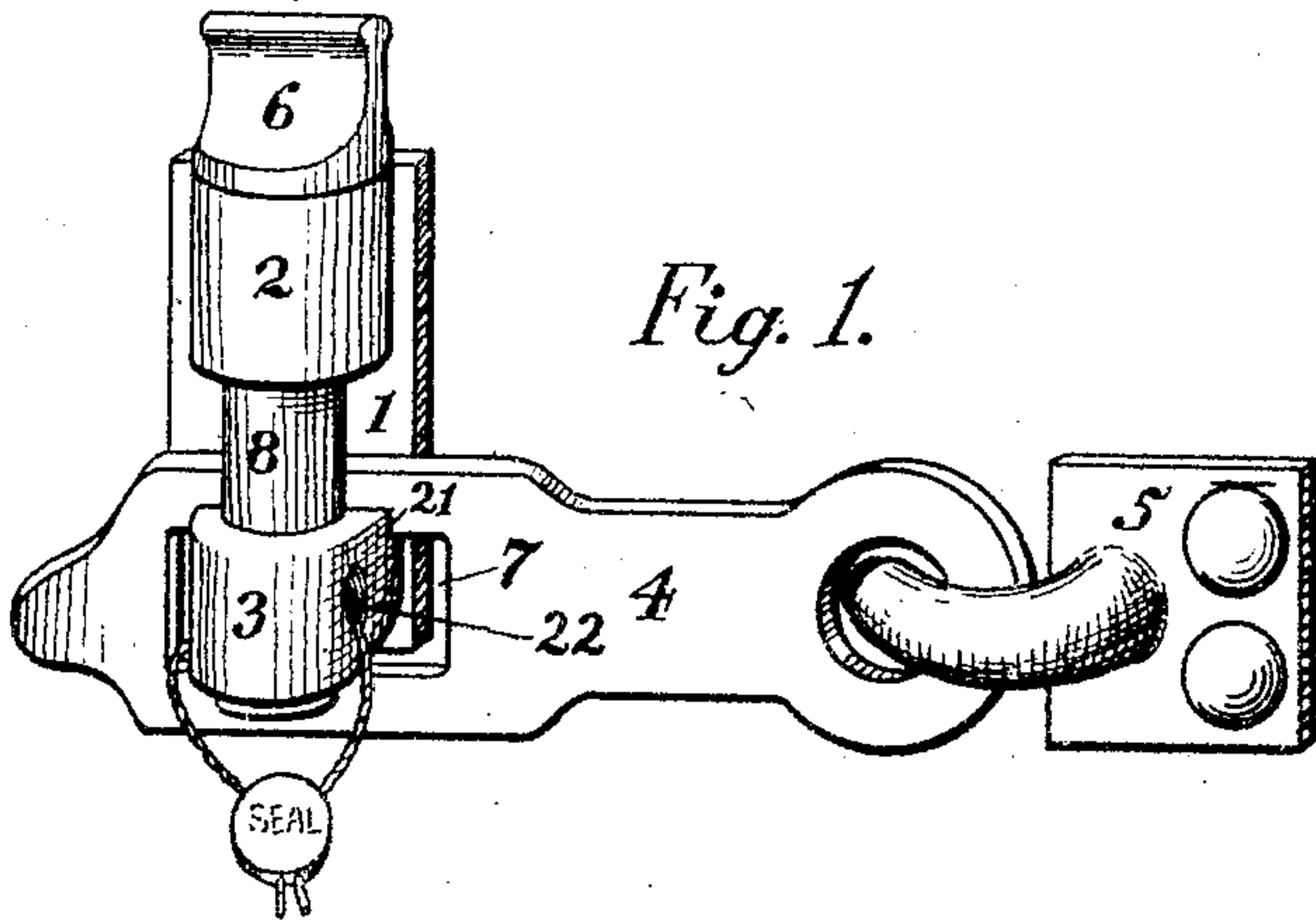


Fig. 2

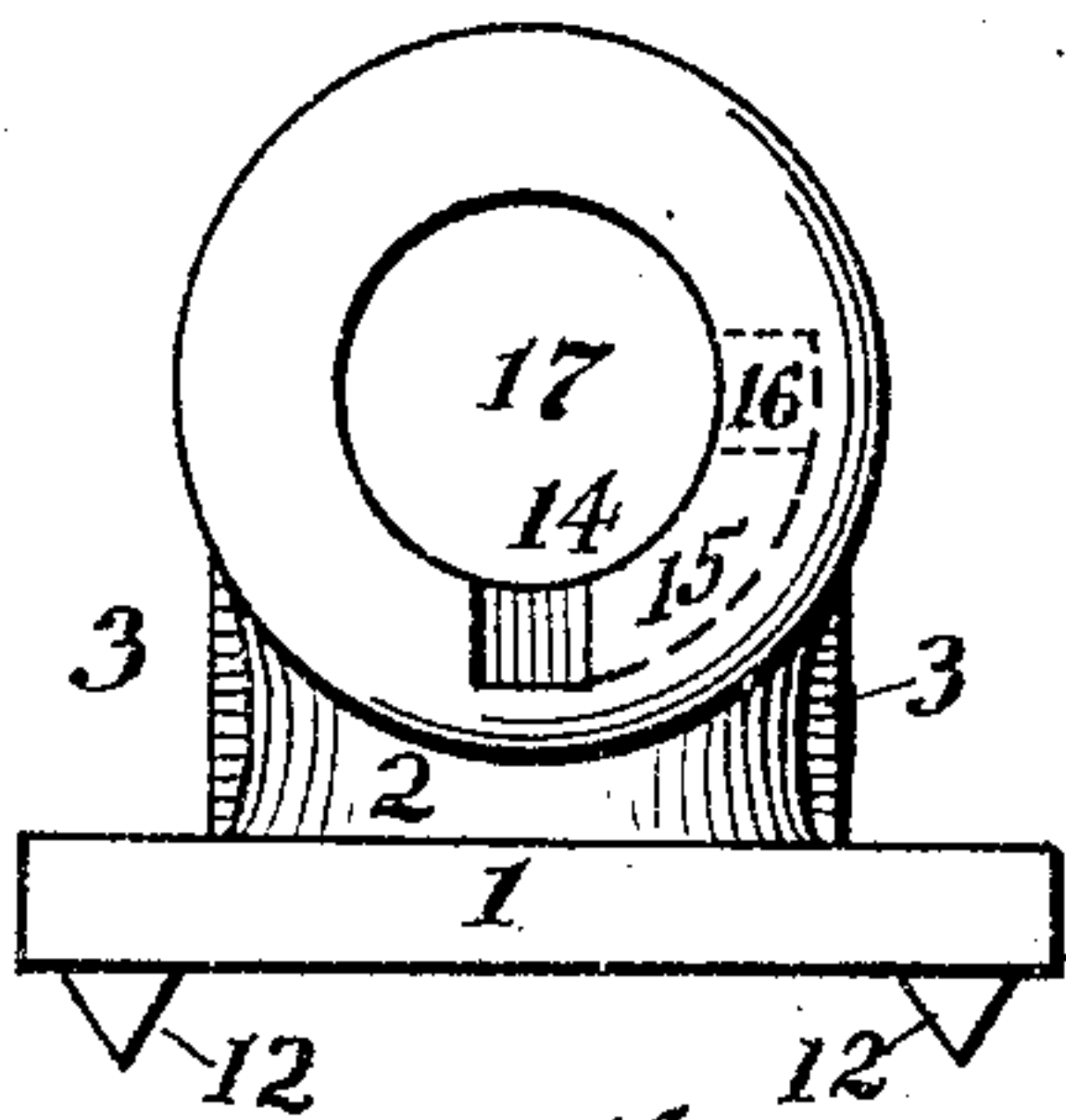


Fig. 3

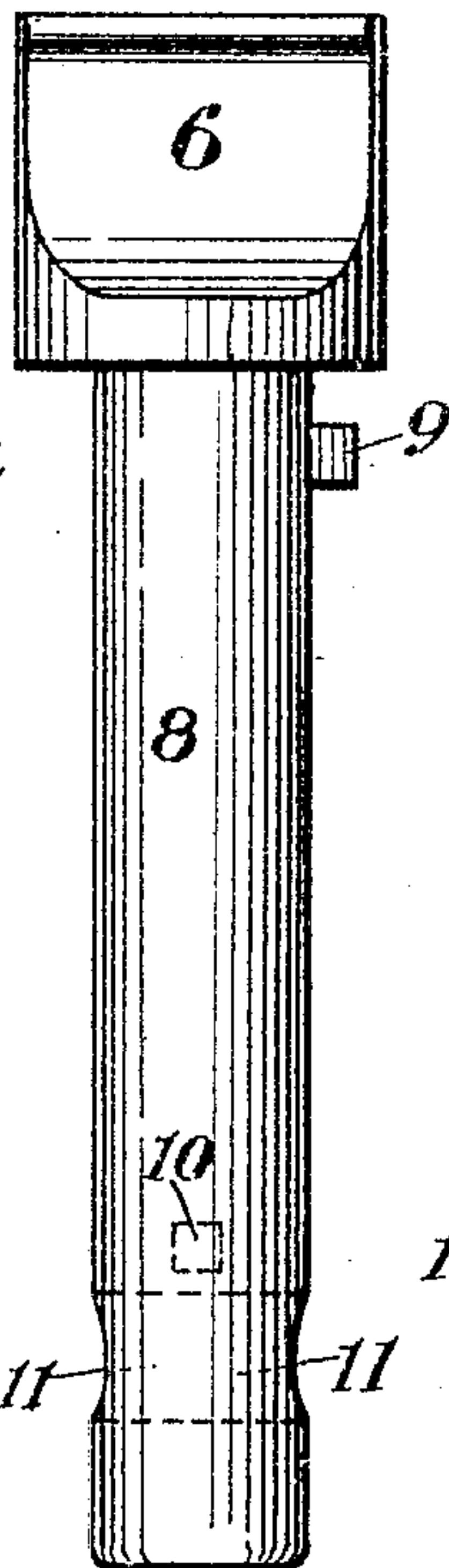


Fig. 4

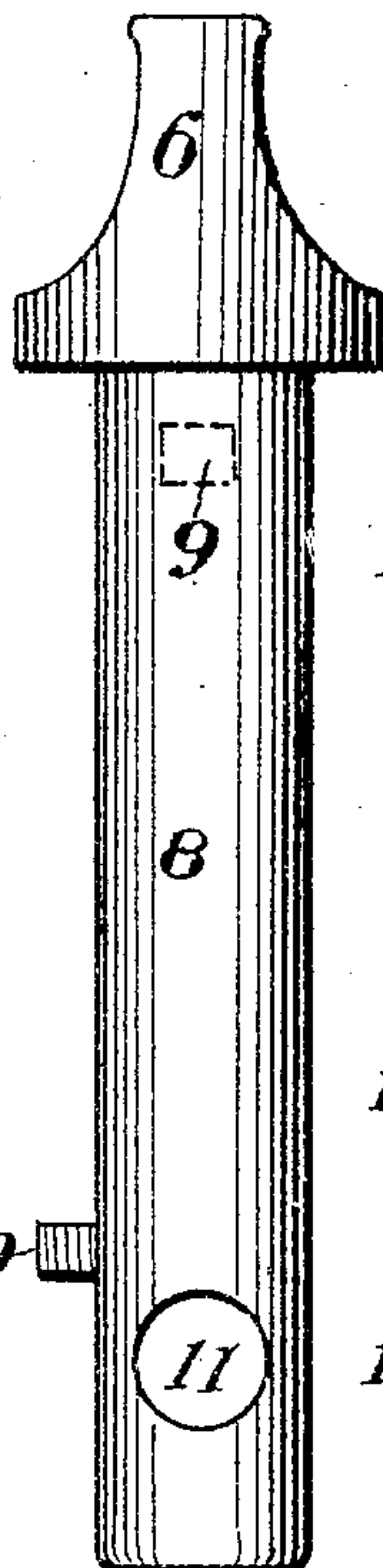


Fig. 5

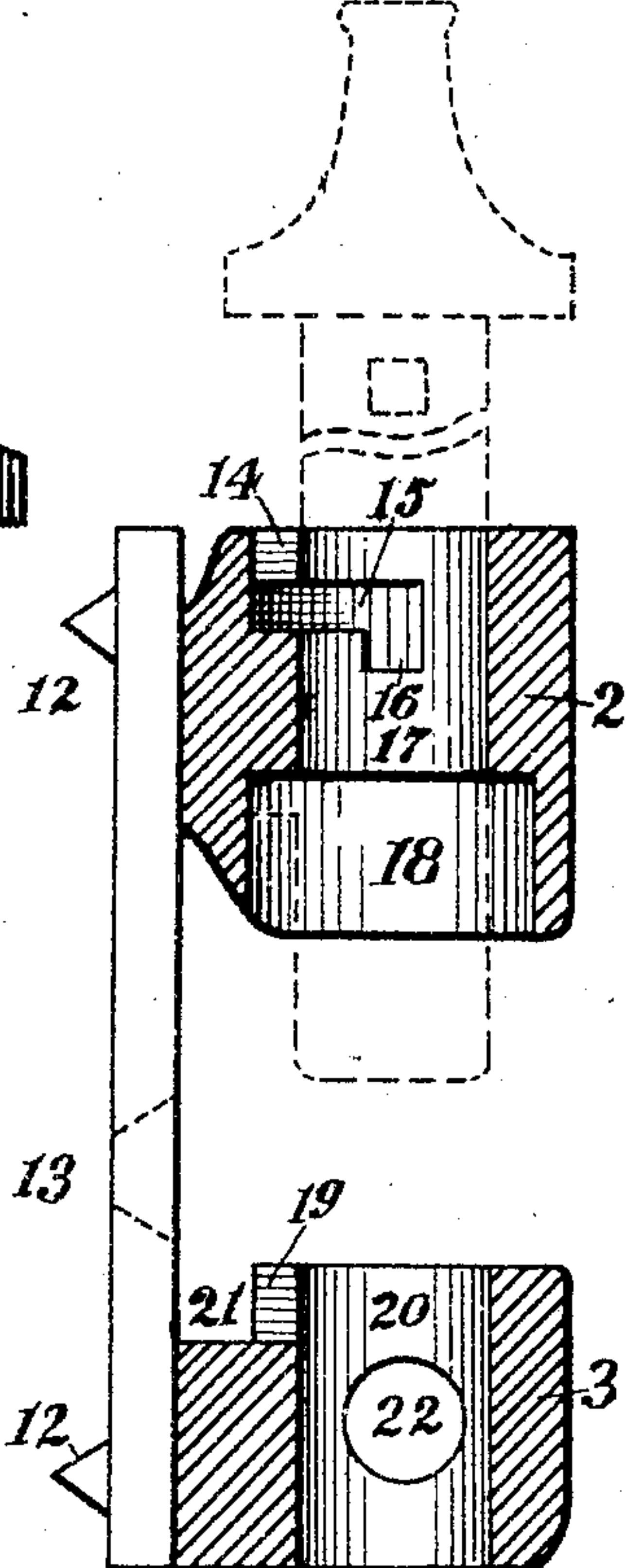
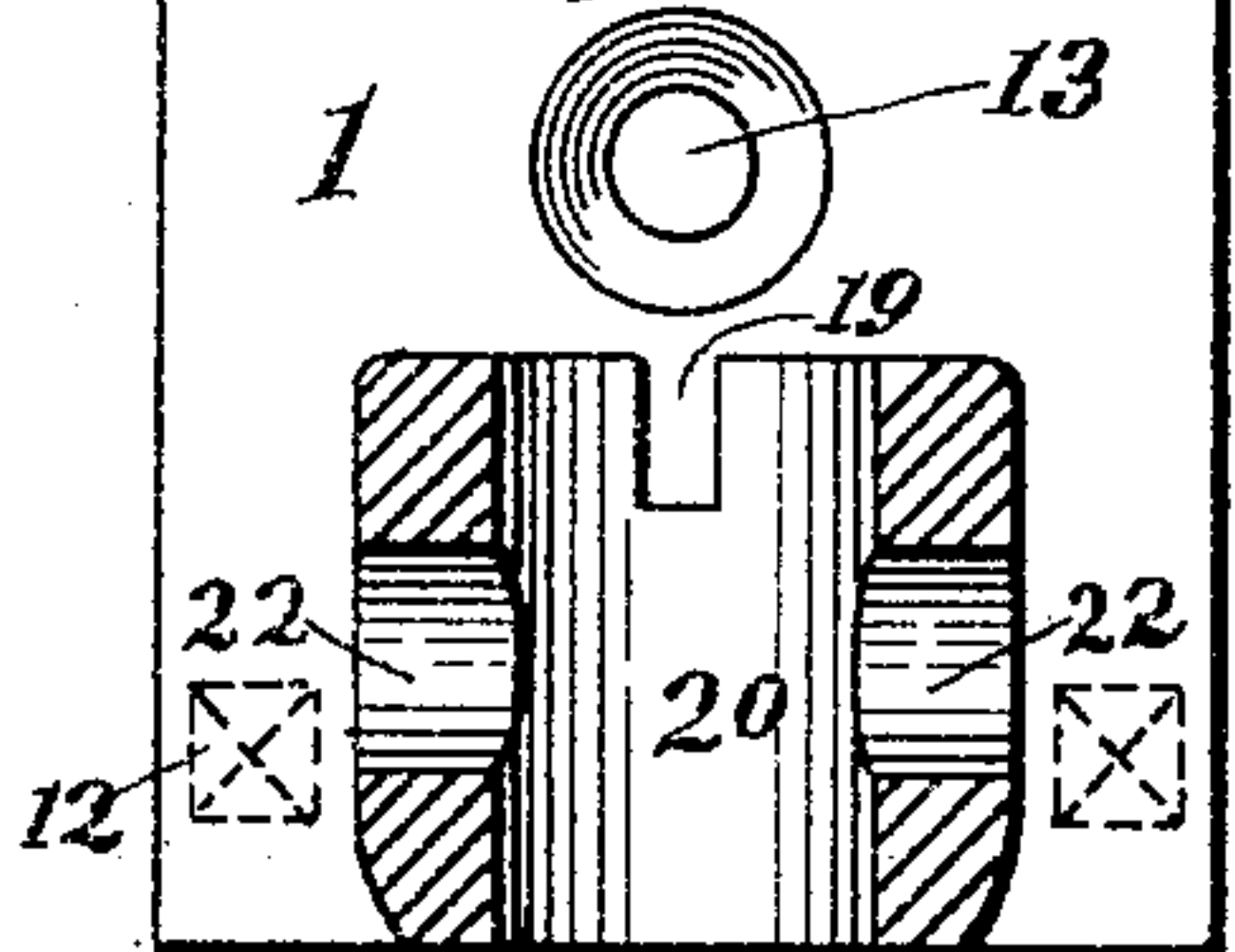


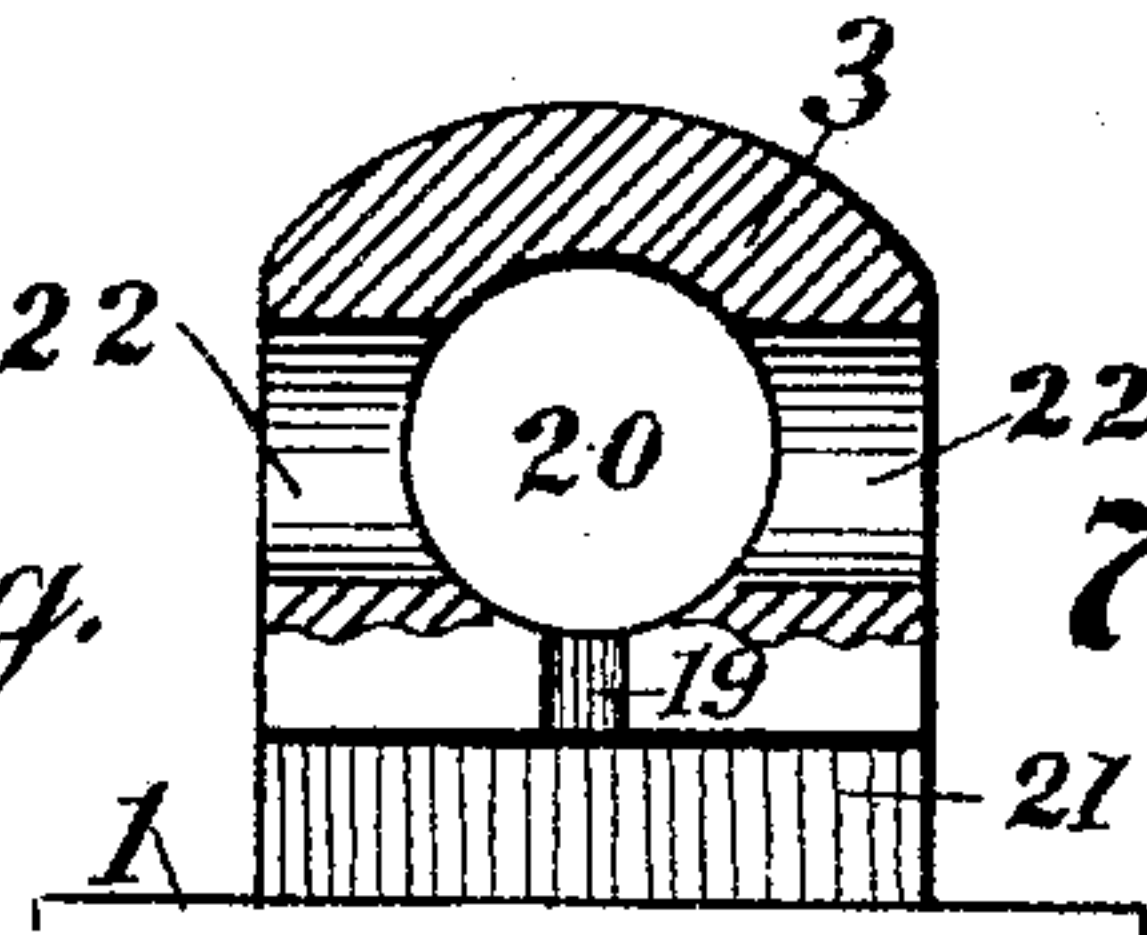
Fig. 6



Witnesses

Stella b. Norris.
J. H. Kappa

Fig. 7



Inventor

F. J. Lerch.

Abraham Knobel
Attorney

UNITED STATES PATENT OFFICE.

FREDERICK J. LERCH, OF LOUISVILLE, KENTUCKY, ASSIGNOR OF ONE-HALF TO WILLIAM J. LAFFEY, OF LOUISVILLE, KENTUCKY.

CAR-DOOR FASTENER.

SPECIFICATION forming part of Letters Patent No. 777,738, dated December 20, 1904.

Application filed June 27, 1904. Serial No. 214,339.

To all whom it may concern:

Be it known that I, FREDERICK J. LERCH, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful Car-Door Fastener, of which the following is a specification.

My invention relates to fastening devices for the doors of freight-cars; and the objects of my improvement are security, strength, to prevent depredation, and to prevent wrong and ineffective sealing. These objects I attain by means of the device illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view; Fig. 2, a plan view with the bolt removed; Fig. 3, a side view of the bolt; Fig. 4, an edge view of the bolt; Fig. 5, a vertical central section of the lugs; Fig. 6, a vertical central section of the lugs in a plane parallel to that of the base-plate; and Fig. 7, a horizontal section, central to the seal-orifice, of the lower lug.

Similar reference-numerals refer to similar parts throughout the several views of the drawings.

The body of my invention consists of the base-plate 1, the lugs 2 and 3, preferably integral with the base-plate 1, said base-plate adapted to be secured to the door-frame, and the hasp 4, which is fastened to the car-door. The hasp 4 has the usual slot 7, which adapts it to pass over lug 3. Lug 3 is pierced vertically by an orifice 20, by means of which it is adapted to be used as the ordinary staple in the conventional hasp-and-staple fastening. The lug 2 is pierced with an orifice 17 axially in line with orifice 20 and is used as a guide for and means for locking the bolt. The bolt 8 is adapted to pass through orifices 17 and 20 with a snug fit and is provided with a flattened head 6, having a shoulder adapted to fit and cover smoothly the top of lug 2, so as to prevent water and dirt entering orifice 17. The shank of bolt 8 is provided at its upper end, a short distance below the shoulder 6, with a projecting pin or lug 9 and near the lower end with a similar projecting pin or lug 10, the projections 9 and 10 being disposed at an angle of ninety degrees relative to one an-

other on the surface of the shank of the bolt. Near the lower end of bolt 8, just below projection 10 and transverse to said projection, is an orifice 11, through which the sealing wire or strip is passed. Lug 3 is provided with a corresponding transverse orifice 22. The orifices 11 and 22 are so disposed that they register when bolt 8 is in locking position. Lug 3 is provided at its base on top, adjacent to base-plate 1, with a transverse slot 21, adapted to receive hasp 4, and thus take the outward thrust of the door and relieve bolt 8. A slot 19 forms a communication between slot 21 and orifice 20 and is adapted to receive projection 10. The orifice 17 is counterbored at the bottom, so as to form the enlarged portion 18, which is adapted to receive projection 10 of the bolt when the bolt is withdrawn from orifice 20 in order to release the hasp. The upper portion of lug 2 is provided internally with a bayonet-slot, consisting of the vertical portion 14, the horizontal portion 15, and the terminal vertical portion 16. This slot communicates with orifice 17 and is adapted to receive projection 9 of the bolt. It will be understood that the vertical portions 14 and 16 are disposed relatively at an angle of ninety degrees in the wall of orifice 17.

In use when the door is to be closed bolt 8 is withdrawn. Hasp 4 is swung over lug 3 against base-plate 1, when it sinks by gravity into slot 21 and remains there, so that bolt 8 and the seal may be easily adjusted. Bolt 8 is dropped down in front of the hasp and the lower end enters orifice 20. Projection 9 is directed into slot 14, when the bolt will drop till the projection strikes the bottom of the slot. Projection 10 will then rest upon the top of lug 3, the bolt is given a quarter-turn, causing projection 9 to traverse slot 15, and when it reaches the end of the slot it will drop into slot 16 and projection 10 will drop into slot 19. The shoulder of head 6 will then rest upon and cover the top of lug 2, and the orifices 11 and 22 will register ready to receive the seal wire or strip, according to which is to be used. The seal wire or strip is passed through orifices 22 and 11 and the seal applied.

It is obvious that in order to remove the bolt it must be partly withdrawn until projection 9 strikes the top of slot 15, and projection 10 is lifted free from slot 19, then the bolt must be given a quarter-turn to the left, and finally projection 9 lifted out of slot 14. These manipulations cannot be accomplished without removing the seal wire or strip or severing it in lug 3. Even if the seal wire or strip should be successfully removed, some difficulty will be experienced in withdrawing the bolt on account of the projections 9 and 10 working in the bayonet-slot and slot 19, respectively, unless this feature is thoroughly understood. Thus is provided, besides an effective sealing device, a somewhat intricate lock. The head 6 of the bolt is flattened and provided with lateral beads to facilitate manipulation.

Having thus described my invention, so that any one skilled in the art pertaining thereto may make it and understand its use, what I claim as new, and desire to secure by Letters Patent, is—

1. In a car-door fastener, the combination with a hasp of a base-plate, a hasp-lug on the lower part of said base-plate provided with a transverse slot in its upper surface, a guide and locking lug on the upper part of said base-plate, and a bolt provided with an upper and a lower projection passing through said guide and locking lug and said hasp-lug, substantially as specified.

2. As a new article of manufacture, a car door fastener consisting of a hasp, a lug to receive said hasp provided with a vertical orifice to receive a bolt, a vertical slot in the wall of said orifice, a transverse orifice to receive a sealing strip or wire intersecting said orifice for the bolt, a guide and bolt-locking lug above said hasp-lug provided with a vertical orifice and a bayonet-slot in the wall of said orifice, and a bolt adapted to pass through said orifices therefor provided with an upper and a lower projection and a transverse orifice for a sealing-strip adapted to register with said intersecting orifice in the said hasp-lug, substantially as specified.

3. In a car-door fastener, the combination of a base-plate, a hasp provided with a slot adapted to receive a lug, a hasp-lug on said base-plate provided with a vertical bolt-orifice and an orifice for the seal-wire intersecting said bolt-orifice, a guide-lug provided with a bolt-orifice and a bayonet-slot in the wall of said bolt-orifice, and a bolt provided with a projecting pin adapted to work in said bayonet-slot and an orifice through its stem for the seal wire or strip adapted to register with the orifice for the same purpose in said hasp-lug, substantially as specified.

FREDERICK J. LERCH.

Witnesses:

F. H. KAPPA,

WILLIAM J. LAFFEY.