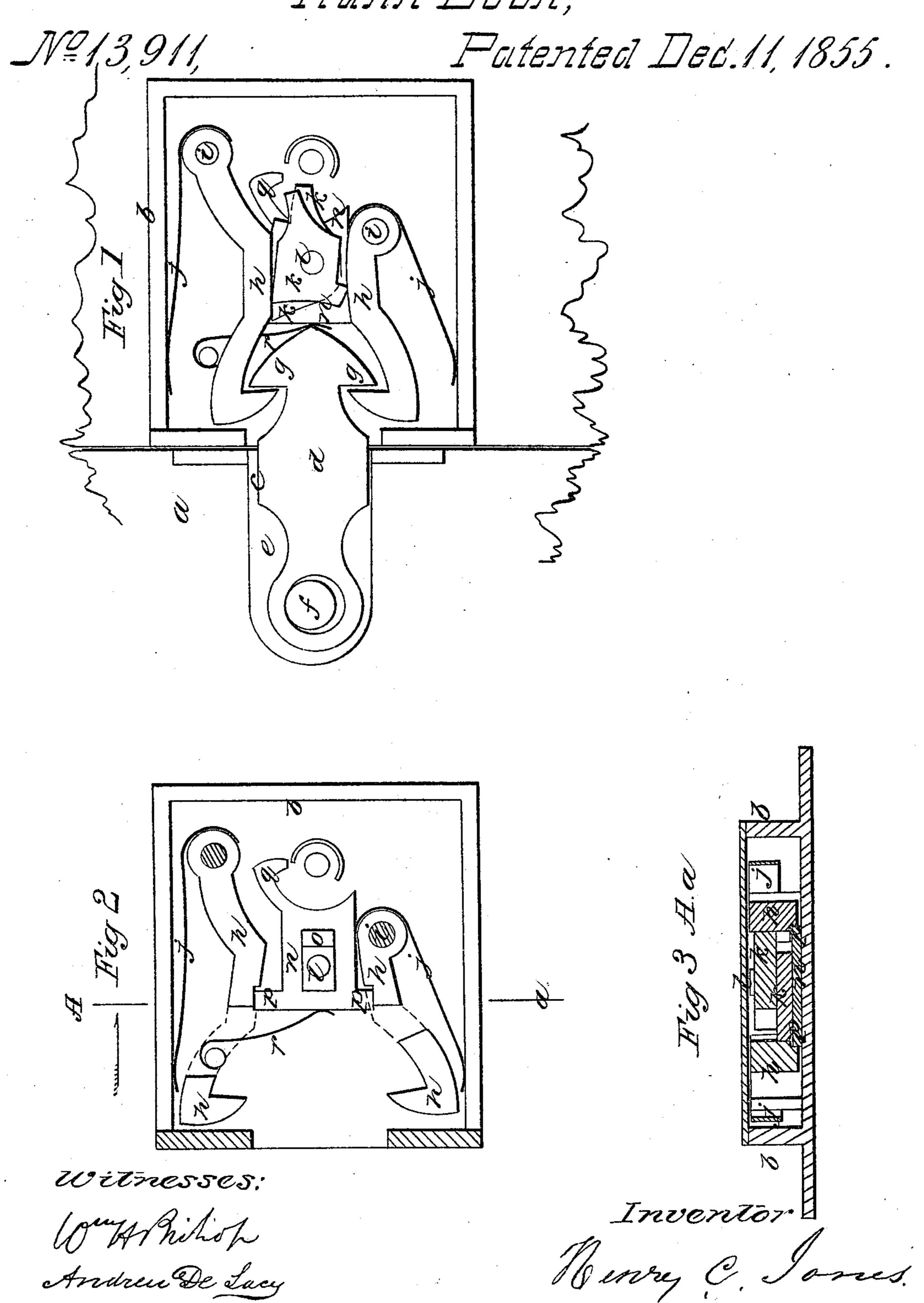
H. L. Jones,

Trunt Lock,



UNITED STATES PATENT OFFICE.

HENRY C. JONES, OF NEWARK, NEW JERSEY.

LOCK FOR FREIGHT-CARS.

Specification of Letters Patent No. 13,911, dated December 11, 1855.

To all whom it may concern:

Be it known that I, Henry C. Jones, of | invented a new and useful Improvement in | as spring bolts. 5 Locks for Railroad Freight-Cars, but Applicable to other Purposes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specifi-10 cation, in which—

Figure 1, is a vertical section passing through the lock and hasp; Fig. 2, another section parallel with the plane of Fig. 1, but taken below the levers that operate the 15 bolts, and Fig. 3, a section taken at the line

A, a, of Fig. 2.

The same letters indicate like parts in

all the figures.

Railroad freight cars are provided with 20 sliding doors which have heretofore been ward ends are formed in the usual manner secured with pad locks, but this is deemed to be inconvenient and insecure. Ordinary bolt locks are not applicable to sliding doors for obvious reasons. For this purpose the 25 hasp must be on and project from the edge of one door and made to enter a mortise in the edge of the lock secured to the edge of the other door. I have applied to this purpose the well known double jaw spring bolt 30 lock with the double catch hasp beveled on the upper and lower edges so that in closing the doors the hasp shall force the bolts apart which then close over the shoulders and lock; but it is necessary for the convenience 35 of loading and unloading cars that such locks should be so constructed that the spring bolts may be held back that the doors may be opened and closed without locking and unlocking, and then put in a condition 40 to be self locking on the closing of the doors. And again the hasps of such locks are liable to be broken when inserted in the lock, by the rack and spring of the cars when in motion, and as the load is varied the spring-45 ing of the cars is such that the hasp properly fitted at first will not enter the mortise of the lock.

The object of my invention is to remedy these defects and adapt the double jaw 50 spring bolt lock to railroad cars, and to these ends the nature of my invention consists in combining with the two jaw spring bolts a sliding tumbler or stop which, as the spring bolts are thrown open by the levers acted upon by the key, is forced back between the bolts to keep them apart that '

the hasp may move in and out without being locked, and when thrown back by the Newark, in the State of New Jersey, have key liberates the bolts that they may act

In the accompanying drawings a, a represents parts of two sliding doors, to one of which the lock b is secured and to the other the hasp c. Or one may be a sliding door and the other a fixed frame. The stem d, 65 of the hasp is inserted in a mortise e of greater width than the stem which is there secured by a fulcrum pin or bolt f passing through the door or frame and through a hole in the stem. The other end of the hasp 70 has two projecting lips g, g, the outer faces of which are beveled and brought to a point.

The lock consists of two bolts h, h, the rear ends of which turn on fulcrum pins i, i, secured to the lock plates and the for- 75 with beveled jaws to be forced open by the beveled end of the hasp. The jaws are forced toward each other to lock the hasp by springs j, j. Between the two jaws there 80 are two levers k, k, that turn on a fulcrum pin l and so formed that when acted upon by the key one of them forces down the lower jaw and the other forces up the upper jaw to unlock the hasp. So far this lock is 85 like one patented some years ago by me. Below the levers k, k there is a plate n with an oblong mortise o fitted to slide on the lower part of the fulcrum pin l which is there made square to act as a guide. This 90 plate has two projections p, p one on the upper and the other on the lower edge, and the two bolts h, h have their under faces notched out so that when this plate, which I term the stop tumbler, is pushed forward 95 they can be forced toward each other by the tension of their springs; but when the bolts are forced apart by the action of the key to unlock the hasp, the stop tumbler is forced back by the key bit striking against a lip 101 q on the rear end, aided by the tension of \bar{a} spring r which brings the two projections p, p between the two bolts which holds them apart, and so long as the bolts with their jaws are thus held apart the 105 hasp may be inserted without being locked so that the doors can be closed without being locked.

When it is desired to put the lock in a condition to be self locking the key is in- 110 serted and turned in the reverse direction to strike the lip q on the stop tumbler and

push it forward which liberates the bolts that they may act as spring bolts in locking the hasp. The proportions of the parts should be such that when the jaws are thrown open by the action of the key on the levers they may be thrown apart farther than is necessary simply to unlock the hasp, and the object of this is that when the jaws are forced apart by the beveled end of the hasp they will not be thrown apart sufficiently to permit the stop tumbler to move back and stop them.

From the foregoing it will be seen that the master of transportation or conductor may, at the required time, by the insertion of the key, open and stop the jaws that the car may be loaded by the attendants who can open and close the doors without locking; and when making ready to start a train he can pass along and with the key put all the locks in a condition to be self locking and put the key in his pocket that

the attendants may lock all the cars without the key, thus avoiding the necessity, often attended with serious inconvenience, of de- 25 taining the master of transportation or conductor until every car is ready to be locked.

What I claim as my invention and desire

to secure by Letters Patent is—

Combining with the double jaw spring 30 bolts of a lock and with the levers by which the jaws are opened by the action of the key, as specified, a stop tumbler, substantially such as described, operated by the key after the jaw bolts have been opened to 35 hold and keep them apart after the key is taken out of the lock, that the lock may be employed as a stop or dead bolt lock, as specified.

HENRY C. JONES.

Witnesses:
WM. H. BISHOP,
ANDREW DE LACY.