(Model.) 2 Sheets—Sheet 1.

G. J. BEDFORD.

FREIGHT CAR LOCK.

No. 348,715. Patented Sept. 7, 1886.

Fig. 1.

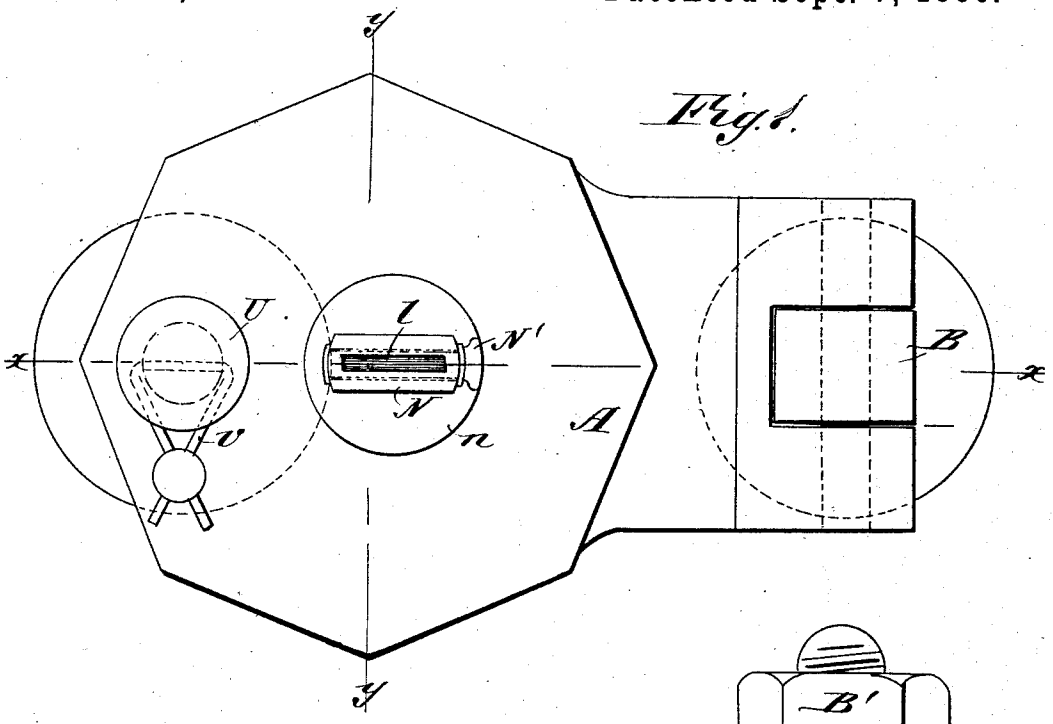
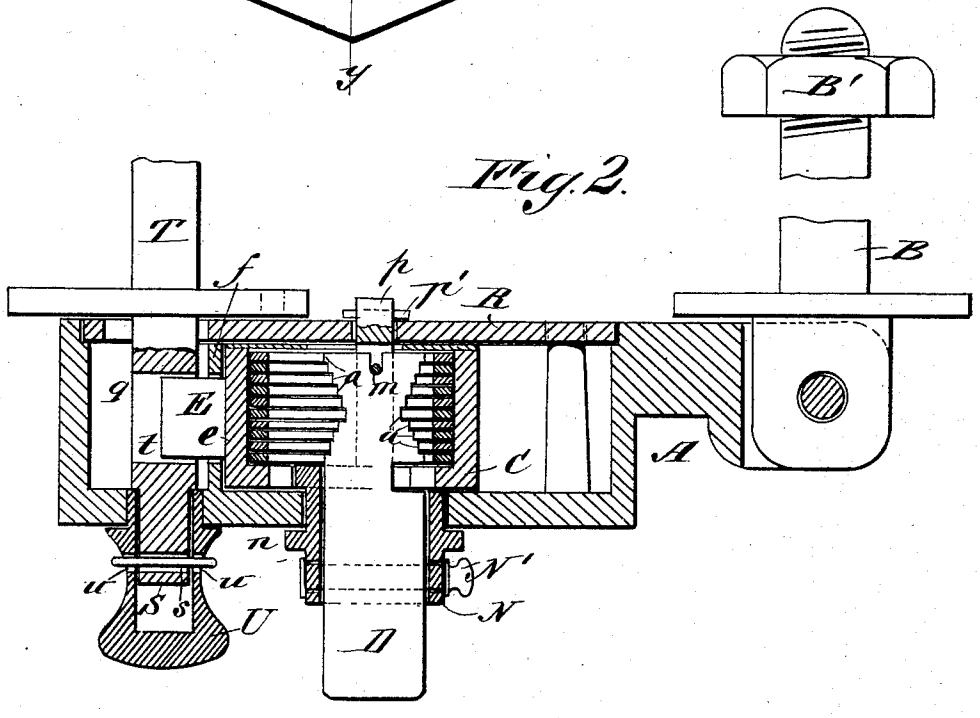


Fig. 2.



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C. Bedgwick

INVENTOR:

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ATTORNEYS.

(Model.) 2 Sheets—Sheet 2.

G. J. BEDFORD.

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Fig. 3

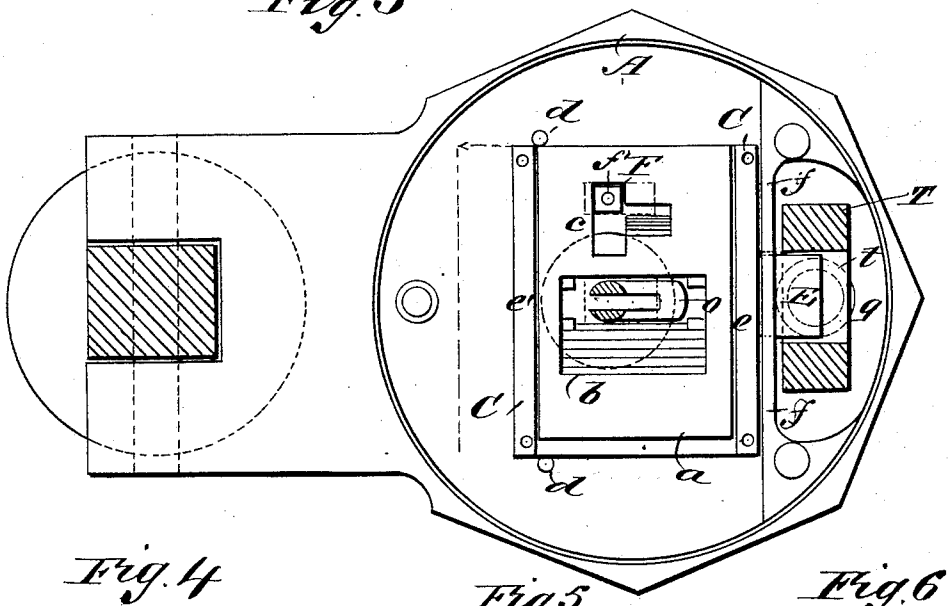


Fig. 4

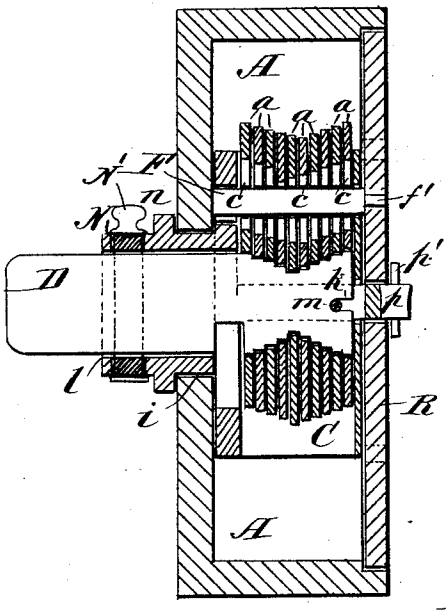


Fig. 5.

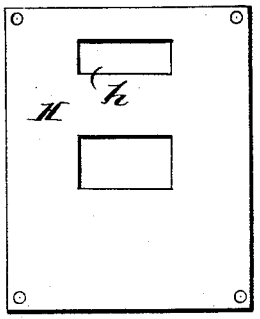


Fig. 6

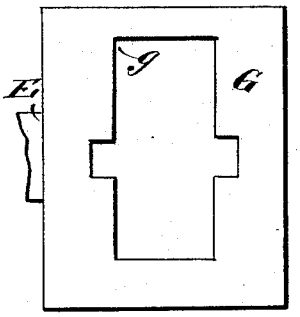


Fig. 7.

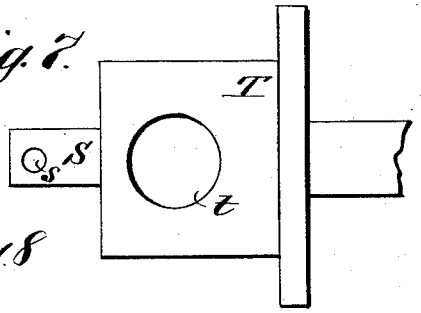
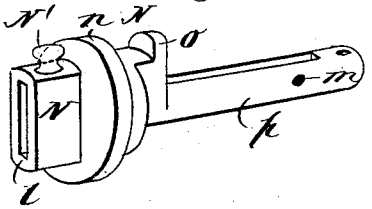


Fig. 8



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UNITED STATES PATENT OFFICE.

GEORGE J. BEDFORD, OF ANAMOSA, IOWA.

FREIGHT-CAR LOCK.

SPECIFICATION forming part of Letters Patent No. 348,715, dated September 7, 1886.

Application filed April 12, 1886. Serial No. 198,581. (Model.)

To all whom it may concern:

Be it known that I, GEORGE J. BEDFORD, of Anamosa, in the county of Jones and State of Iowa, have invented a new and Improved Freight-Car Lock, of which the following is a full, clear, and exact description.

My invention relates to the construction of a hasp-lock applicable to any form of door, but designed more especially for use in connection with a freight-car door or other form of door that it is necessary to seal.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a face view of my improved form of lock. Fig. 2 is a sectional view taken on line *x x* of Fig. 1. Fig. 3 is a view of the inner side of the lock, the face-plate of the lock and the face-plate of the tumbler-case being removed to disclose the interior construction. Fig. 4 is a sectional view of the lock, taken on line *y y* of Fig. 1, the key-spindle being moved around a quarter-turn. Fig. 5 is a detail view illustrating the construction of the inner plate of the tumbler-case. Fig. 6 is a similar view of the outer plate of the tumbler-case. Fig. 7 is a detail view illustrating the construction of the eyebolt in connection with which the lock is employed; and Fig. 8 is a perspective view of the key-spindle.

In constructing such a lock as is illustrated in the drawings above referred to, I provide a heavy case, A, that is hinged to a bolt, B, adapted to be secured to the body of the car by means of a nut, B'. The interior of the case A is divided into two compartments by a partition, *f*, in the larger one of which there is arranged a tumbler-case, C, in which any number of tumblers, *a a a*, are arranged, said tumblers being provided with central openings, *b*, the size of which varies to correspond with the wards of the key D, and with side openings, *c*, that are T-shaped, and so relatively placed that when the key is in the lock the openings in all of the tumblers will register. The tumbler-case C rests against the outer face of the lock-case, and is guided by pins or lugs *d d*, projecting inward from said outer face, and by the locking-bolt E, which is made integral with the forward side, *e*, of the case C, and extends through the partition *f*, which divides the lock-case into two compartments. The inwardly-extending post F is arranged so as to pass through the openings *c* in the tumblers *a*, and also through an opening, *g*, formed in the plate G, which constitutes the outer plate of the tumbler-case, the extreme end of the post F projecting through an opening, *h*, formed in the inner plate, H, of said tumbler-case, which plate is secured to the forward and rear walls, *e e'*, of the tumbler-case, as will be readily understood, while the extreme end of the post F is formed with a projection, *f'*, which extends through the rear plate, R, of the lock-case, said rear plate being held to the main case A in any manner desired.

The lock-spindle N (the construction of which is best shown in Fig. 8) is fitted in an aperture, *i*, formed in the outer face of the lock-case, and is provided with a collar, *n*, which fits against the outer face of the case A, and a toe, *o*, by which the tumbler-case is thrown forward or back as the lock-spindle is rotated. Projecting inward from below the toe *o* there is a shank, *p*, which extends through the end plate, R, and is there engaged by a pin, *p'*, which serves to hold the lock-spindle in position. The key D is inserted through the aperture *l*, formed in the lock-spindle, and the inner end of the key is supported by a pin, *m*, which passes through the shank *p*, a notch, *k*, being formed in the key to fit upon the said pin *m*.

In the plate R there is an opening, *q*, designed to admit the projecting end of an eyebolt, T, which is secured to the door of the car, the opening *t* in the head of said eyebolt being arranged so as to be entered by the locking-bolt E when said dog is thrown forward into a smaller compartment of the lock-case. The bolt T is provided with an extension, S, formed with an aperture, *s*, and this extension S enters a hollow cap, U, that is secured to the outer face of the lock-case, openings *u u*, which register with the slot *s*, being formed in said cap U.

This lock is designed to operate in a horizontal position, and is so arranged that when turned against the face of the door, so that the head of the bolt T enters through the opening or aperture *q*, and the bolt E is thrown forward, the tumblers *a a* will fall so that their weight

will be supported by the post F, which at this time will be in the vertical portion of the T-shaped slots *c*. Now, to throw back the bolt E, the key D is inserted in the lock-spindle N and the spindle and key are given a quarter-turn, which movement will throw the tumblers upward, so that the horizontal portions of the slots *c* will be in line with the post F and all of the slots will register, and a continued turning of the spindle will bring the toe *o* into engagement with the plate G, and the tumbler-case and with it the bolt will be thrown backward to clear the locking-bolt E from engagement with the eyebolt T, the post at this time entering the horizontal portion of the slots *c*. When it is desired to again throw the locking-bolt forward, it may be done by simply turning the key-spindle. After the door to which the lock described is applied has been locked, and it is desired that the lock should be sealed, a wire, *v*, is passed through the apertures *u u* of the cap U and the aperture *s* of the extension S, and the ends of the wire are united by a seal, V. In the outer end of the key-spindle there is a slotted plug, N′, which, when the key is withdrawn, may be turned to close the key-slot, thus keeping out dirt and moisture.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a lock, the combination, with a sliding tumbler-case and a locking-bolt carried thereby, of a slotted key-spindle formed with a toe, *o*, substantially as described.

2. The combination, with a lock-case and its supporting-bolt to which the case is hinged, of a sliding tumbler-case and its tumblers, a key-spindle formed with a central slot or opening, *l*, and provided with a pin, *m*, and a toe, *o*, and a rigid post, F, adapted to extend through apertures formed in the outer and inner plates of the lock-case and through T-shaped openings formed in the tumblers, substantially as described.

3. The combination, with a lock-case, of a tumbler-case provided with a locking-bolt and held to slide in said lock-case, tumblers in said tumbler-case, and a longitudinally-apertured key-spindle journaled in the lock-case and adapted to engage the tumbler-case, substantially as described.

4. The combination, with a lock-case, of a tumbler-case provided with a locking-bolt, tumblers in said tumbler-case provided each with a key-aperture and a guide-slot, a guide-post held in the lock-case and passing through the tumbler-case and the guide-slots of the tumblers, and a longitudinally-apertured key-spindle journaled in the lock-case, passing through the key-apertures of the tumbler, and provided with an engaging-toe for the tumbler-case, substantially as described.

5. The combination, with a lock-case provided with a partition, *f*, and lugs *d*, of a tumbler-case provided with a locking-bolt, tumblers in said tumbler-case provided with key-apertures and T-shaped guide-slots, a post held in the lock-casing and passing through the T-shaped slots of the tumblers, and a longitudinally-apertured key-spindle journaled in the lock-case, passing through the key-apertures of the tumblers, and provided with a toe, *o*, substantially as described.

6. The combination, with a lock-case and its supporting-bolt, of a locking mechanism and an eyebolt with which the locking mechanism engages, a cap, U, connected to the lock-case, and an extension formed on the eyebolt and entering the cap on the lock-case, the extension and the cap being formed with registering openings, substantially as described.

7. The key-spindle N, apertured at *l*, and provided with shank *p*, collar *n*, toe *o*, and pin *m*, substantially as described.

8. The combination, with the key-spindle N, of the slotted plug N′, substantially as described.

9. The combination, with a key-spindle apertured longitudinally at *l*, provided with a slotted shank, *p*, and with a toe, *o*, and having a pin, *m*, crossing the slot in the shank, of a key, D, fitted to the aperture of the spindle and provided with a recess, *k*, substantially as described.

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Witnesses:
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JOHN C. DOOLITTLE.