

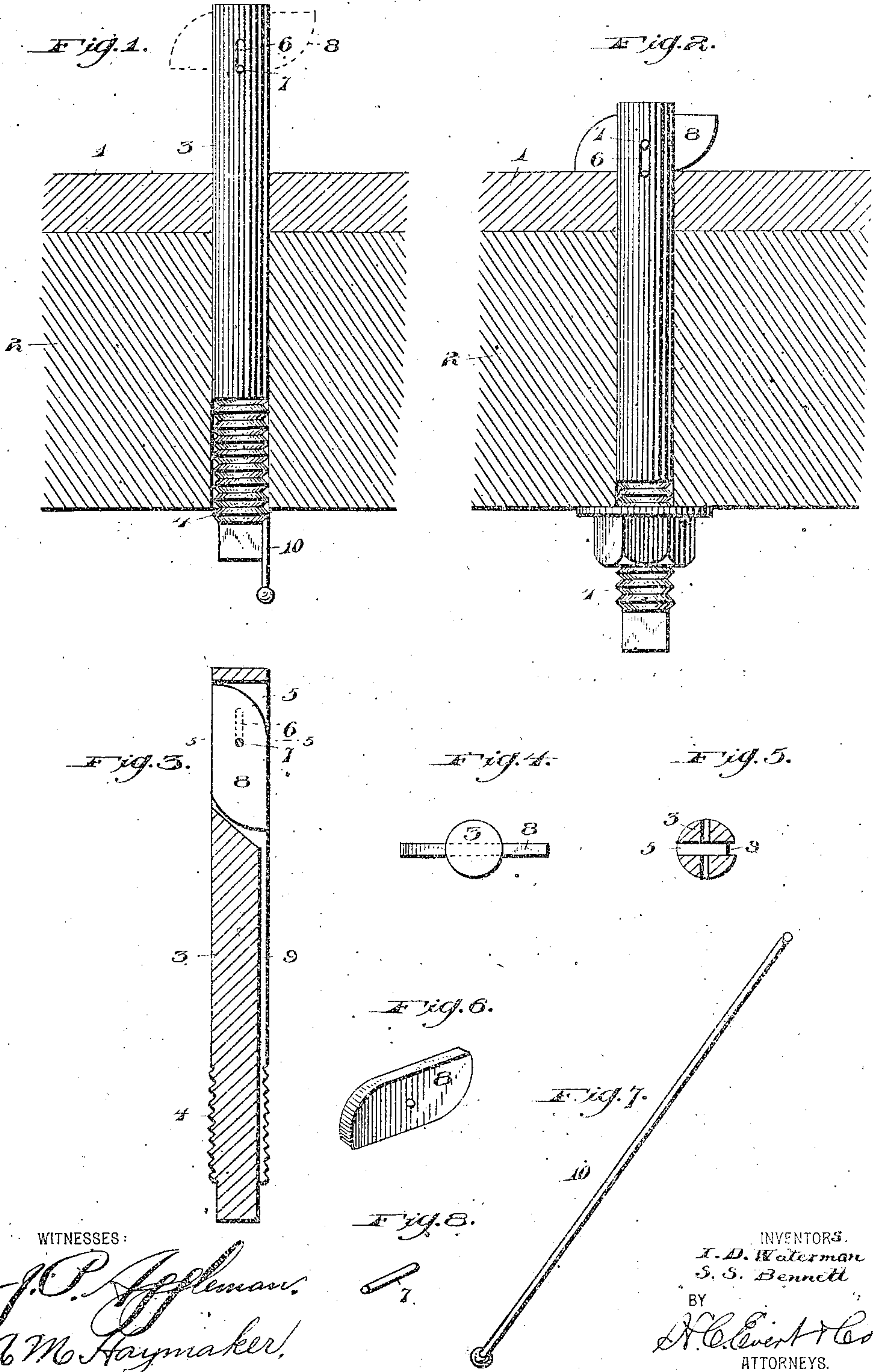
No. 644,115.

Patented Feb. 27, 1900.

I. D. WATERMAN & S. S. BENNETT.
EMERGENCY BOLT FOR RAILROAD CARS.

(Application filed Dec. 4, 1899.)

(No Model.)



UNITED STATES PATENT OFFICE.

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PENNSYLVANIA.

EMERGENCY-BOLT FOR RAILROAD-CARS.

SPECIFICATION forming part of Letters Patent No. 644,115, dated February 27, 1900.

Application filed December 4, 1899. Serial No. 739,091. (No model.)

To all whom it may concern:

Be it known that we, ISAIAH D. WATERMAN and SAMUEL S. BENNETT, citizens of the United States of America, residing at Blairsville, in the county of Indiana and State of Pennsylvania, have invented certain new and useful Improvements in Emergency-Bolts for Railroad-Cars, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to certain new and useful improvements in emergency-bolts for railroad-cars, but more particularly to that class known as "draft-bolts," and is adapted to be used to retain draw-heads of couplers on railway-cars in proper position.

The invention has for its object to provide novel means that in case the draft-bolt is broken the herein-described device may be easily inserted and serve to retain the draw-head in the proper position.

The invention has for its further object to construct a draft-bolt of the above-described character that will be extremely simple in its construction, strong, durable, and comparatively inexpensive to manufacture.

With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claim.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate corresponding parts throughout the several views, in which—

Figure 1 is a vertical sectional view of a portion of a draw-head and bottom of a car having inserted therein our improved draft-bolt and showing in dotted lines the removable head. Fig. 2 is a vertical sectional view showing all parts arranged in proper position. Fig. 3 is a vertical sectional view of our improved draft-bolt. Fig. 4 is a top plan view of the same, showing the head extending outwardly through each side of the body portion. Fig. 5 is a cross-sectional view taken on the horizontal line 5 5 of Fig. 3 with the head removed. Fig. 6 is a perspective view of the head. Fig. 7 is a per-

spective view of the key employed for moving the head to its locking position. Fig. 8 is a perspective view of the pin serving to secure the head to the bolt proper.

In the drawings the reference-numeral 1 indicates a portion of the draw-head, and 2 indicates the bottom of the car, said portions being provided with a suitable opening adapted to receive the draft-bolt 3, said draft-bolt carrying screw-threads 4 on its lower extremity and having arranged near the upper end thereof an opening 5, extending through said bolt. Slots 6 are formed in the bolt and extend transversely to said opening 5 and communicate therewith and are adapted to receive a pin 7, carrying a movable head 8, the latter being adapted to operate in the opening 5. A keyway 9 is formed in said bolt and extends in alinement therewith and the opening 5, said keyway being formed for the reception of a key 10, which is adapted to be operated therein.

The operation of our improved draft-bolt is as follows: When it is desired to make the connection, the bolt is inserted and passed through the portions 1 and 2, the head of the bolt being in the position as shown in Fig. 3 of the drawings. The key is then inserted and the head of the bolt forced to the position shown in dotted lines in Fig. 1 of the drawings. The key is then removed and the nut placed upon the screw-threaded portion 4 of the bolt, as shown in Fig. 2 of the drawings. It will be noted that by the use of the slot 6 the pin 7, carrying the head, will ride in the said slot and will allow the head to operate more easily than would otherwise be the case. Furthermore, by this construction the bolt does not extend through the draw-head to such a length as would be required in case the head were pivotally secured in the bolt.

The operation of removing the draft-bolt will be readily understood from the foregoing description and a reference to the drawings.

The many decided advantages offered by the use of our improved draft-bolt will be readily apparent from the above description, and it is thought a further description is unnecessary.

It will be noted that various changes may

be made in the details of construction without departing from the general spirit of our invention.

Having thus fully described our invention, 5 what we claim as new, and desire to secure by Letters Patent, is—

10 An emergency-bolt comprising in its construction the bolt 3 having its one end exteriorly threaded and provided near its other end with an oblong opening with the wall at 15 one end of said opening on a line at right angles to the length of the bolt and the wall at the other end of the opening at an incline to the length of said bolt, combined with a head 8 pivotally mounted within the oblong opening of the bolt in a manner to permit its be-

ing moved transversely to the bolt and adapted when so moved to engage the straight wall of the opening, said bolt being provided on its one side with a groove to permit the insertion of a key for operating said head, and a nut mounted on the threaded end of said bolt for securing the same in position, as and for the purpose described. 20

In testimony whereof we affix our signatures in the presence of two witnesses. 25

ISAIAH D. WATERMAN.
SAMUEL S. BENNETT.

Witnesses:

R. THOMPSON,
G. H. JOHNSON.