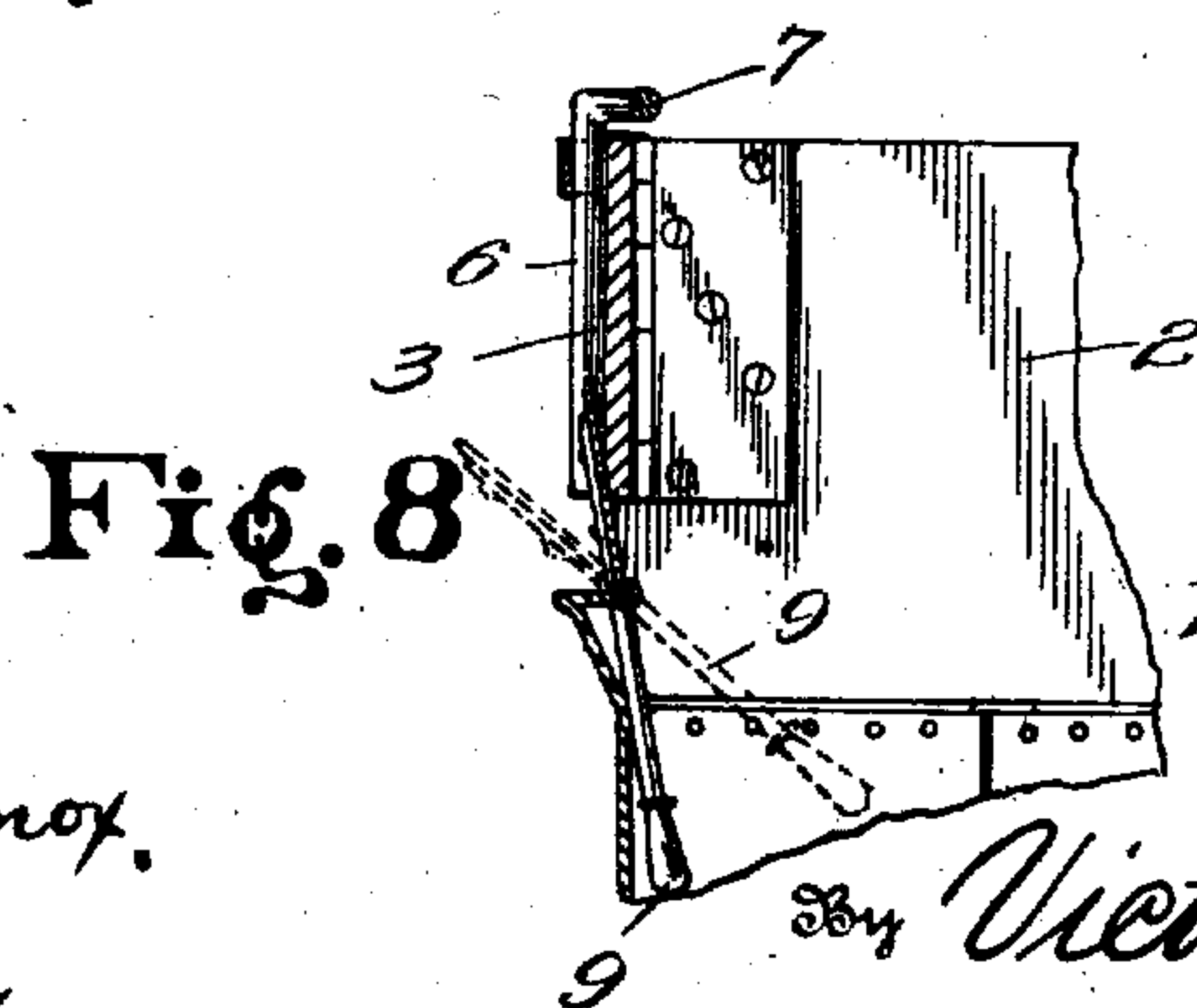
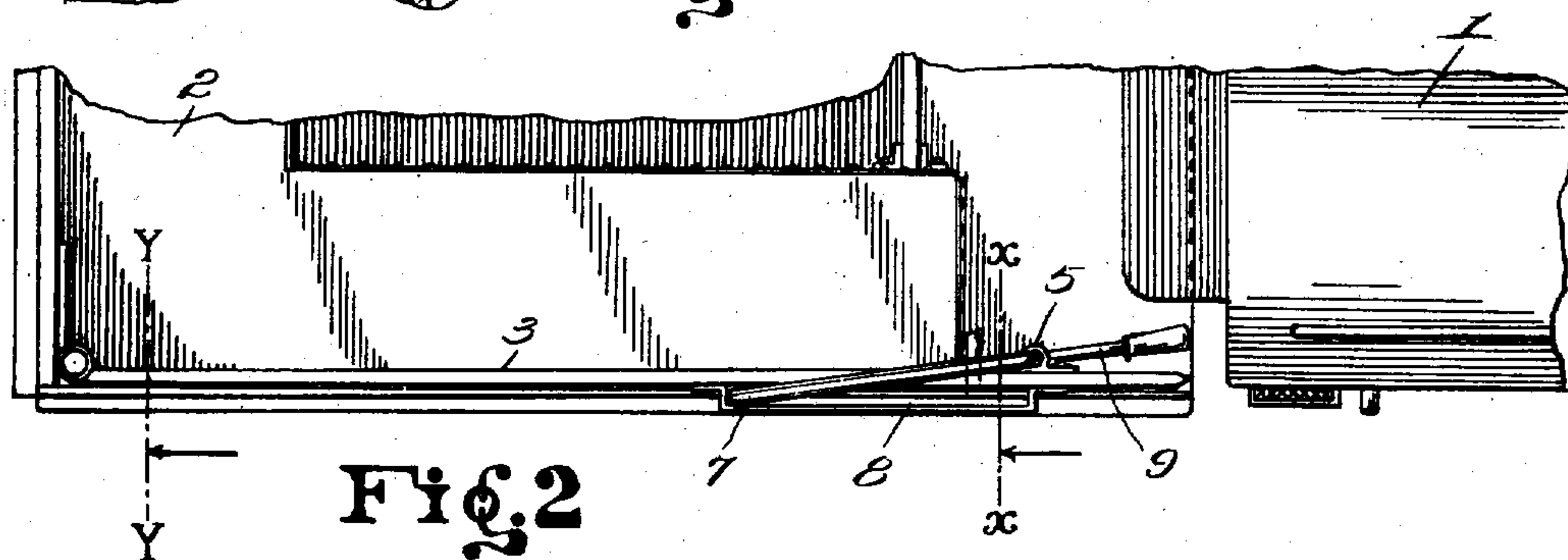


**975,225.**



Witnesses  
F. Fitzhugh Knox.  
L. J. Herald.

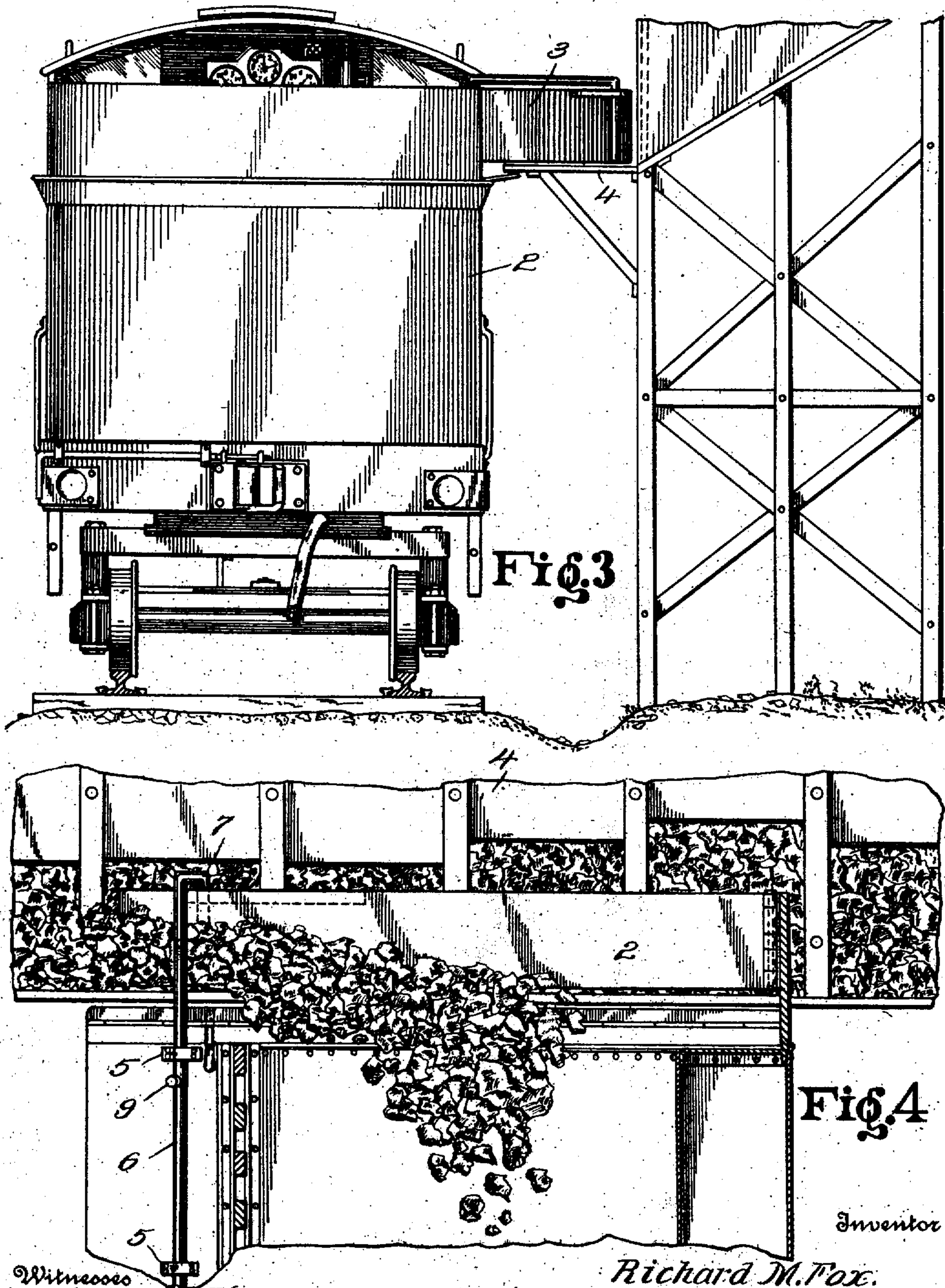
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975,225.

R. M. FOX.  
COAL LOADING DEVICE.  
APPLICATION FILED NOV. 23, 1909.

Patented Nov. 8, 1910.  
3 SHEETS—SHEET 2.



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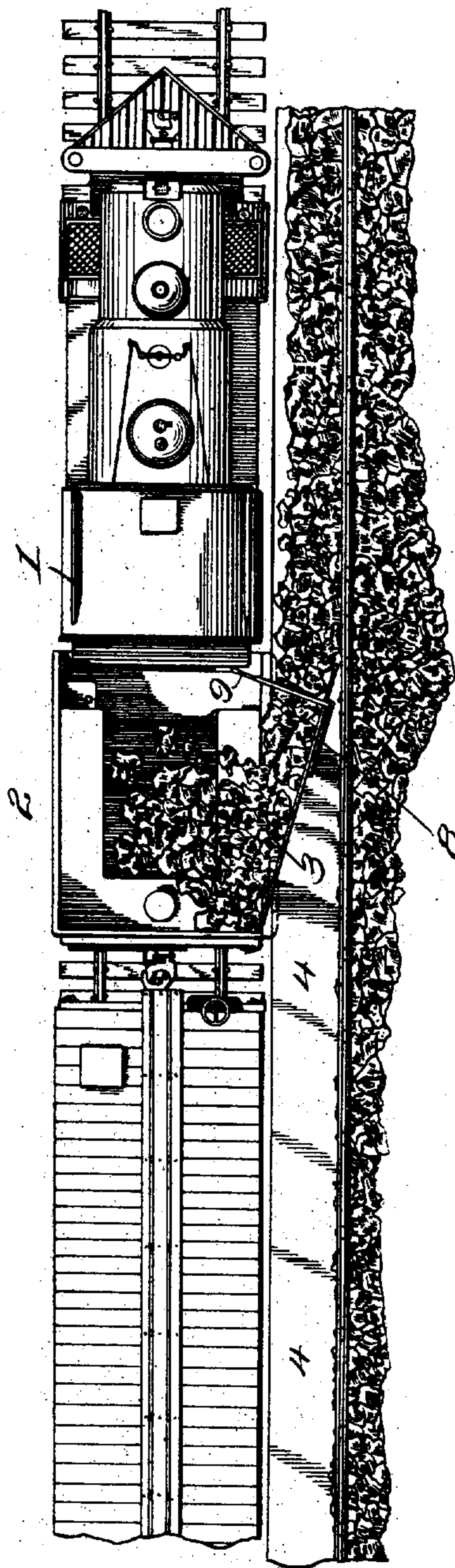


Fig. 5

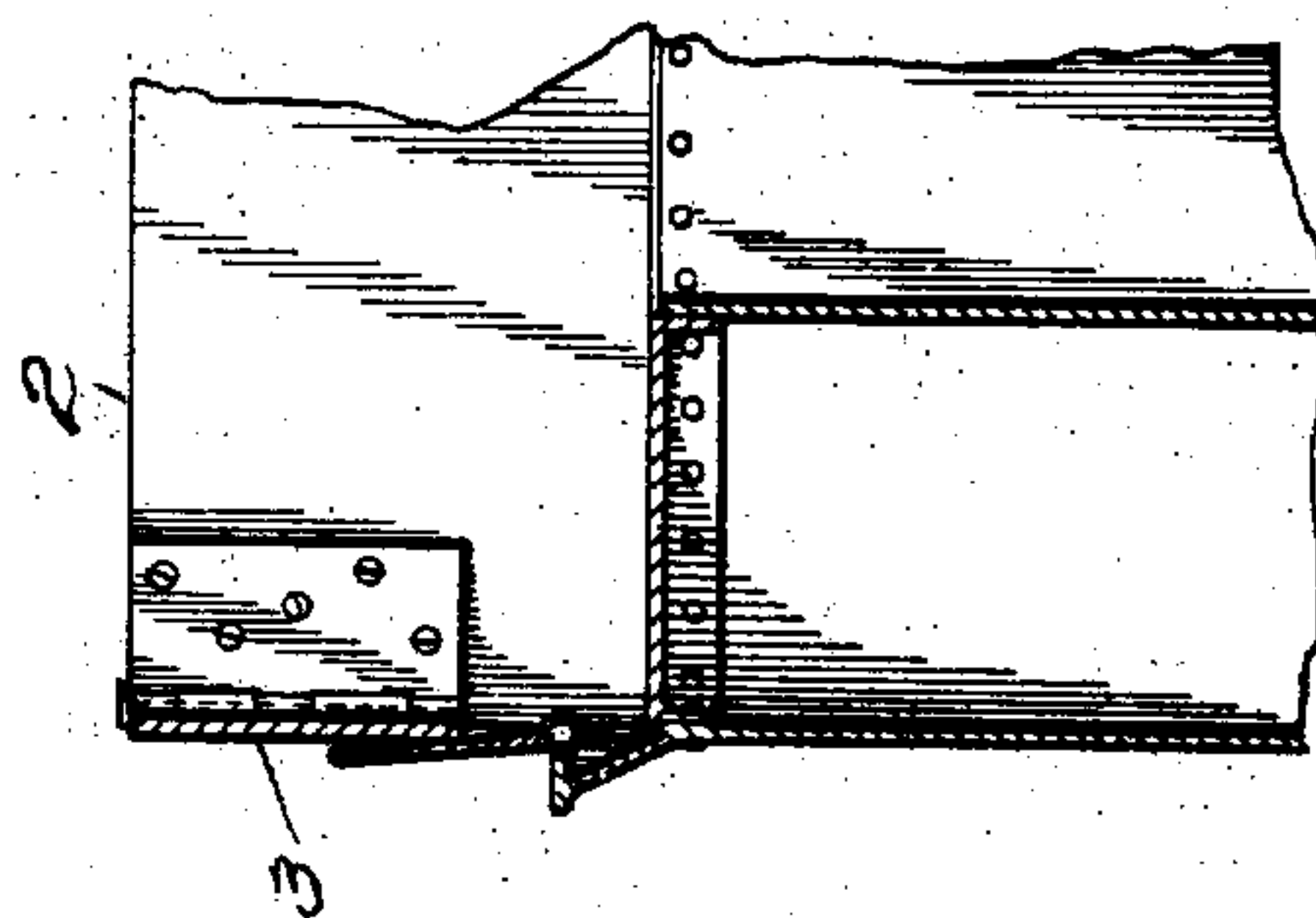


Fig. 7

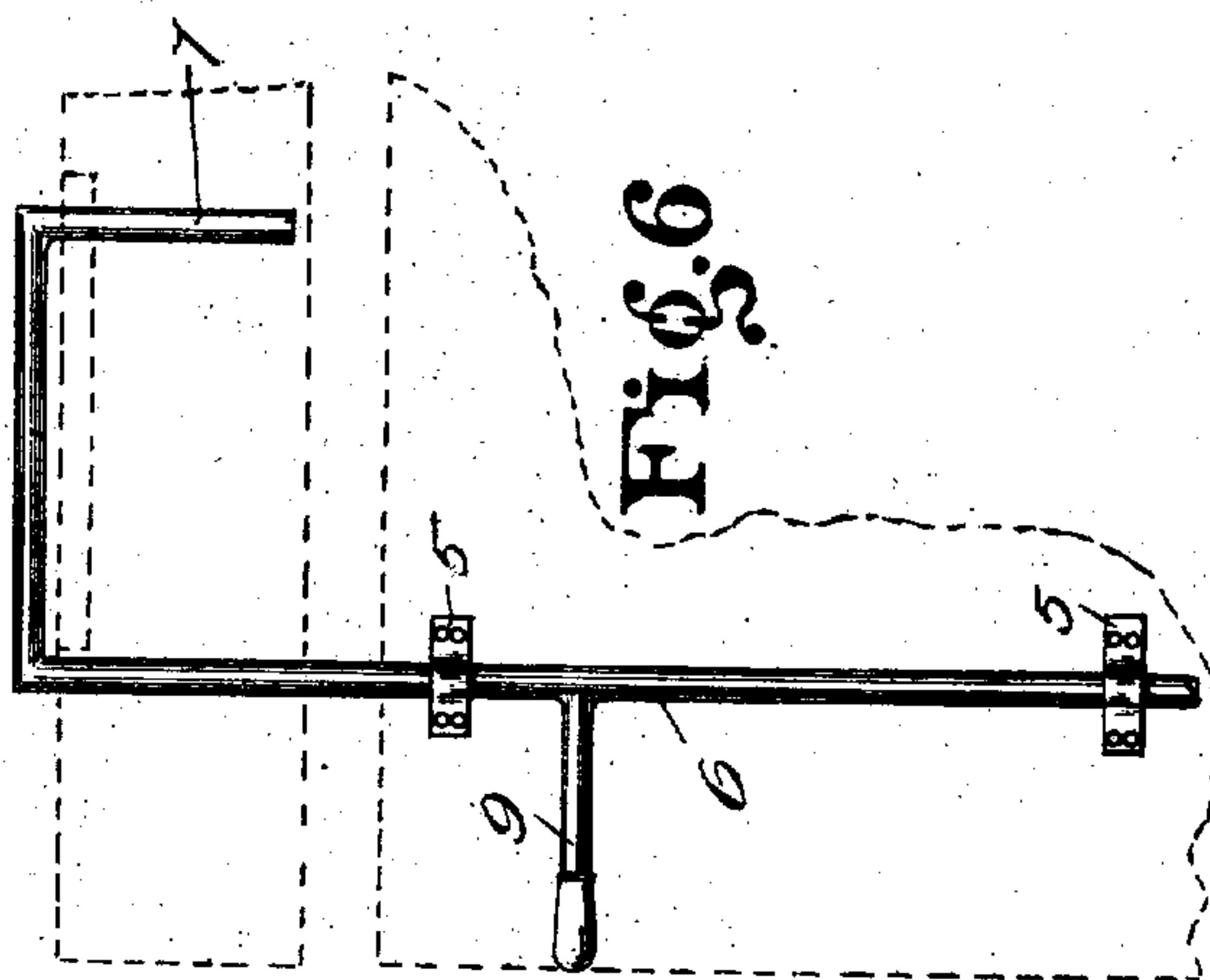


Fig. 6

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# UNITED STATES PATENT OFFICE.

RICHARD M. FOX, OF BLUEFIELD, WEST VIRGINIA, ASSIGNOR OF ONE-FOURTH TO  
ROBERT M. GARRETT, OF BLUEFIELD, WEST VIRGINIA.

## COAL-LOADING DEVICE.

975,225.

Specification of Letters Patent.

Patented Nov. 8, 1910.

Application filed November 23, 1909. Serial No. 529,617.

*To all whom it may concern:*

Be it known that I, RICHARD M. FOX, a citizen of the United States, residing at Bluefield, in the county of Mercer and State of West Virginia, have invented new and useful Improvements in Coal-Loading Devices, of which the following is a specification.

My invention relates to certain new and useful improvements in coal loading devices and it consists in the novel combination and arrangement of parts as will hereinafter be more fully described and pointed out in the claims.

Referring to the drawings forming a part of the specification; Figure 1 is a top plan view of my complete invention as applied to the tank or tender of a locomotive. Fig. 2 is a similar view with the parts broken away showing the invention in a closed or inoperative position. Fig. 3 is an end view of a tank or tender showing my invention as applied thereto and in operative connection with a suitable or properly designed coal chute. Fig. 4 is a vertical transverse section of the tank or tender of a locomotive showing my invention in operative connection with the coal chute. Fig. 5 is also a top plan view of a locomotive and tank showing my invention applied thereto and in operative position with the coal chute for properly directing the coal to the tank or tender of the locomotive. Fig. 6 is a plan view of the lever which I employ in carrying out my invention. Fig. 7 is a vertical transverse section taken on the line  $x-x$  of Fig. 2 and; Fig. 8 is a similar section taken on the line  $y-y$  of Fig. 2.

The object of my invention is to provide a very simple and practical appliance for automatically loading or filling the tank or tender of locomotives with coal or other fuel burning material or substance while the train or locomotive is in motion.

My invention therefore consists in a guide shield or deflector plate, one end of which is movably attached to the tender or tank of the locomotive, having its free end adapted to be operated in such a position as to properly direct the coal to a tank or tender, the coal chute being so arranged and constructed as to properly cooperate with the deflector referred to and in such a manner as to properly guide or direct the coal in the tender or tank.

Referring to the drawings, 1 represents an ordinary locomotive and 2 the usual tender or tank to which my invention is easily and practically attached.

To the rear end of the tank or tender 2 is movably secured one end of a guide plate or deflector 3, the opposite or free end of said deflector being adapted to cooperate or work in conjunction with a suitably constructed coal chute 4, the latter being properly designed and arranged in a longitudinal direction to the side of the track, which coal chute is composed of a suitable trough or platform upon which the coal or fuel is placed or located.

Secured or mounted upon the inner surface of the tank or tender 2 are bearings 5 which movably receive a vertical operating shaft 6, the upper end of which is downwardly turned as shown at 7 and movably received by a slotted portion 8 forming a part of the deflector or guide 3, the said shaft being provided with an operating lever 9 for properly manipulating the deflector or guide in a manner as clearly shown in Figs. 1 and 2 of the drawings.

From the foregoing description it will be seen that when it is desired to coal the tender or tank from the chute 4 referred to, the lever 9 is turned in position as shown in Fig. 1 of the drawings in which operation the free end of the deflector or guide 3 will be thrown outwardly in such a position as to properly guide the coal to the tank, and after said tank or tender has been properly coaled, the said lever 9 is turned in the position as shown in Fig. 2 of the drawings in which operation the guide or deflector 3 will be closed inwardly adjacent to the tank or tender in a position as clearly shown in Fig. 2.

In carrying out my invention it is to be observed that a coal chute for containing the coal or other burning substance should be of sufficient length for the proper and successful operation of the device carried by the tank or tender and further I do not limit myself to the precise construction and arrangement of parts as herein fully described as the same may be modified in many respects without departing from the nature of my invention, the principal object being to provide a suitable device that may be easily operated for automatically coaling a tender or tank of a locomotive during the move-



ment of the train, the device so employed being of a very simple and practical nature in its construction.

Having fully described my invention, what I claim is:

1. A coal loading device comprising a suitable guide or deflector, one end of which is movably attached to the tank or tender of the locomotive, and means for moving the free end of the guide or deflector into engagement with a suitable coal chute, for the purpose described.

2. A coal loading device comprising a suitable guide or deflector, one end of which is movably secured to the tank or tender of a locomotive and located on one side thereof, a suitable coal chute with which the free end of said guide or deflector is adapted to cooperate, and means for operating the said deflector as and for the purpose described.

3. A coal loading device comprising a suitable guide or deflector, one end of which is movably attached to the tender or tank of a locomotive, a vertical shaft mounted in suitable bearings secured to said tank, said shaft having a downwardly projecting end slidingly located within a suitable slotted

portion arranged along the length of said guide or deflector, and a lever forming a part of said shaft for operating the latter as and for the purpose described.

4. A coal loading device comprising a suitable guide or deflector, one end of which is movably secured to the rear end of the tank or tender of a locomotive, a suitable chute adapted to contain coal or other burning material, the free end of said guide or deflector being adapted to cooperate with said chute for properly guiding the coal or other material within the tank or tender of the locomotive, a vertical shaft mounted in suitable bearings attached to the said tender, a lever forming a part of said shaft for operating the latter, and a downwardly projecting end also forming a part of said shaft and cooperating with a suitable slot extending along the length of said guide or deflector as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

RICHARD M. FOX.

Witnesses:

JOHN N. PARKER,  
H. S. STOFFORD.