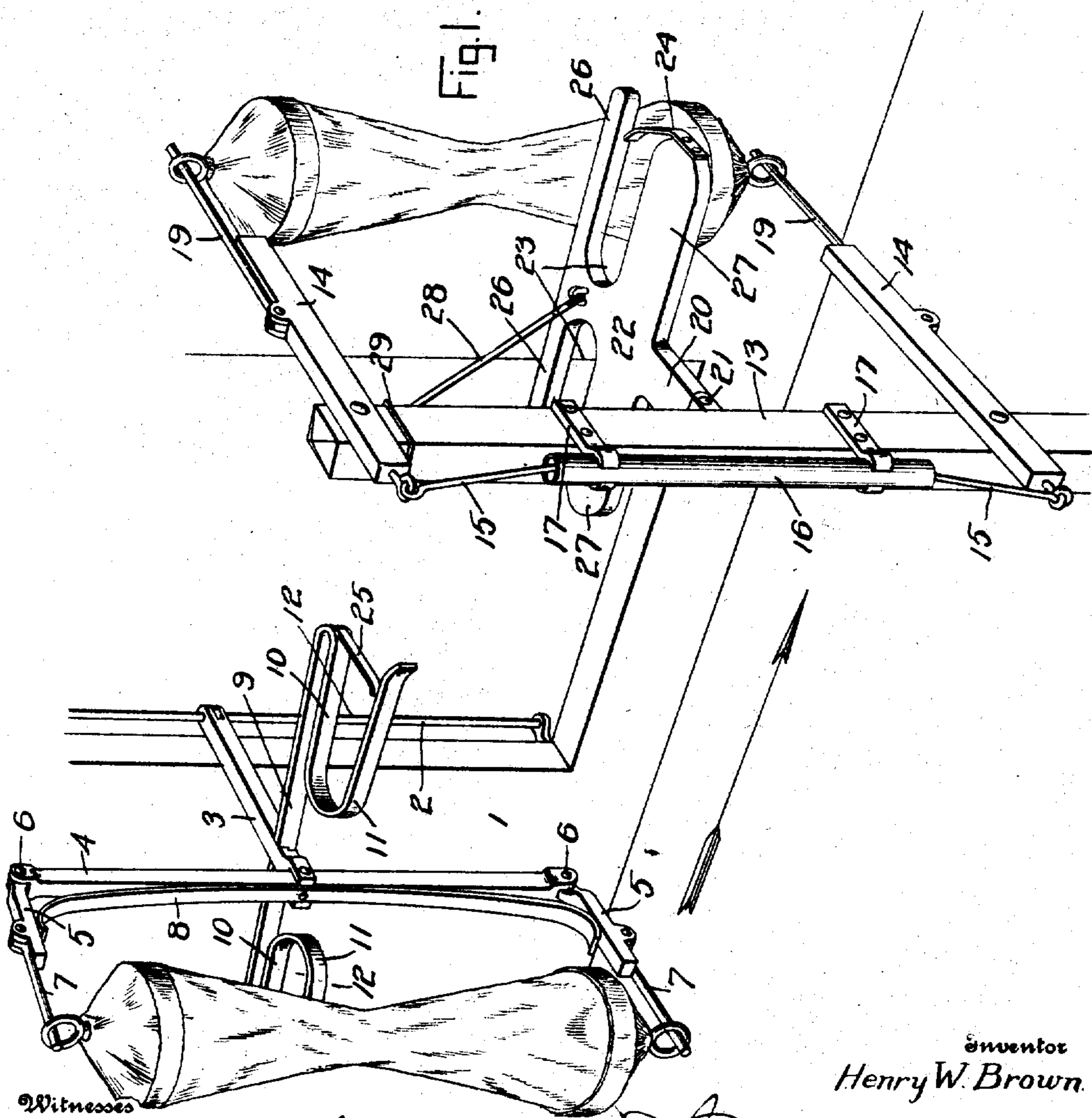


H. W. BROWN.
MAIL BAG CATCHING AND DELIVERING APPARATUS.
APPLICATION FILED JULY 29, 1908.

901,150.

Patented Oct. 13, 1908.

3 SHEETS—SHEET 1.



Witnesses

E. H. Reichenbach
H. C. McCarty

Inventor
Henry W. Brown.

Wm. H. Randle
Attorneys

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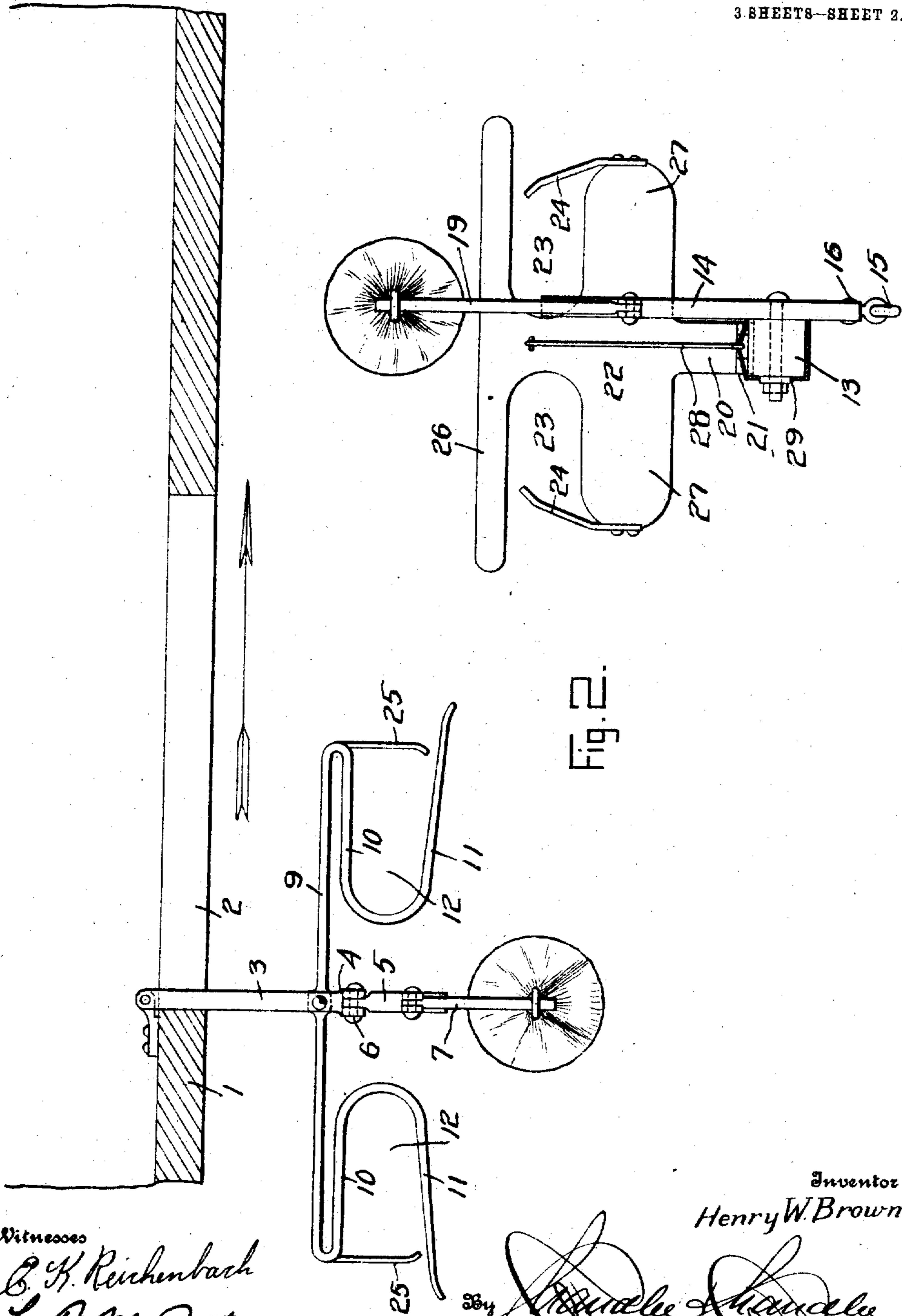


Fig. 2.

Witnesses

C. H. Reichenbach
H. C. McCutcheon

Inventor

Henry W. Brown

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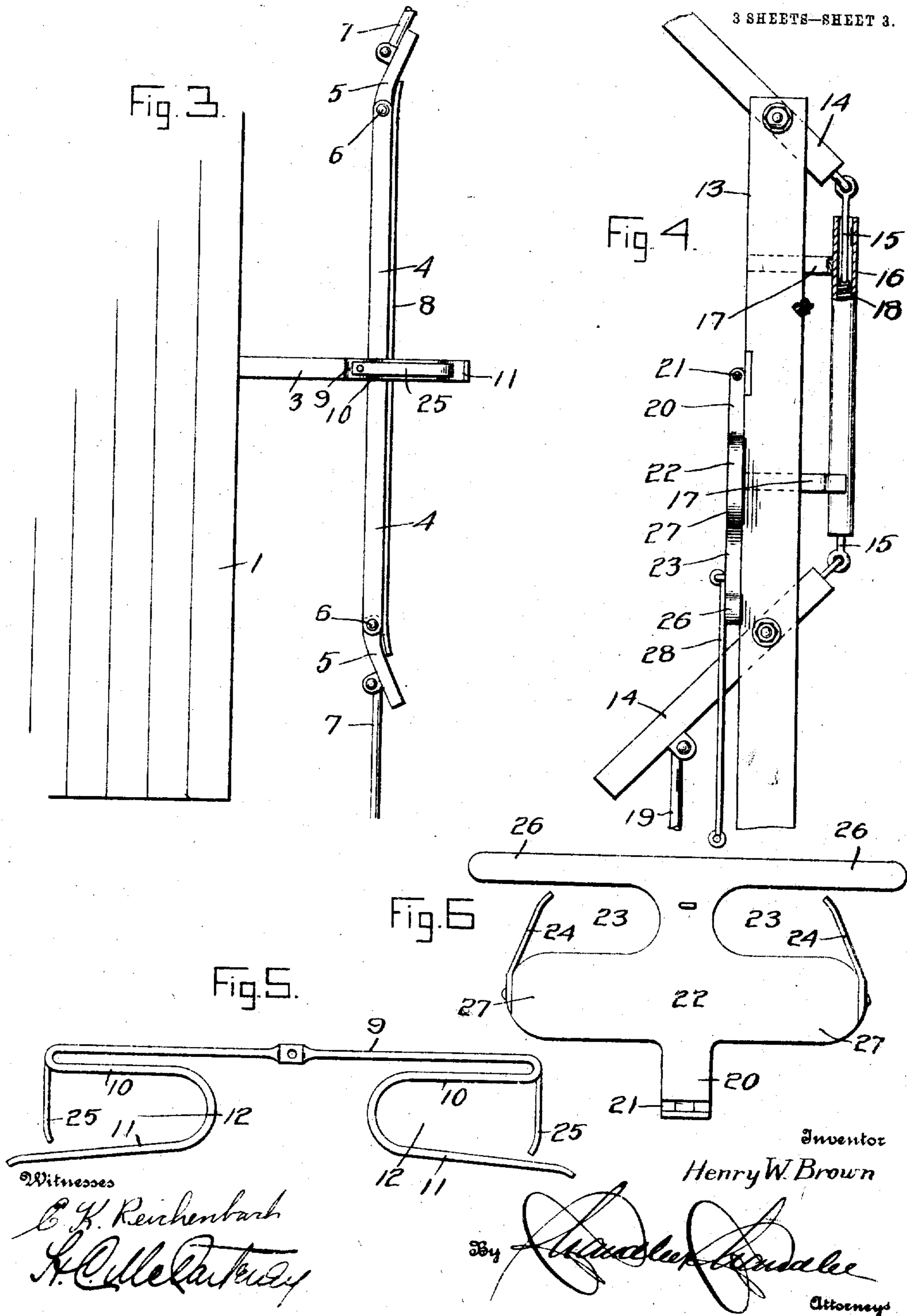
Handwritten signature of H. W. Brown
Attorneys.

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3 SHEETS—SHEET 3.



UNITED STATES PATENT OFFICE.

HENRY W. BROWN, OF RICHARDSON, MISSISSIPPI.

MAIL-BAG CATCHING AND DELIVERING APPARATUS.

No. 901,150.

Specification of Letters Patent.

Patented Oct. 13, 1908.

Application filed July 29, 1908. Serial No. 445,941.

To all whom it may concern:

Be it known that I, HENRY W. BROWN, a citizen of the United States, residing at Richardson, in the county of Pearl River, State of Mississippi, have invented certain new and useful Improvements in Mail-Bag Catching and Delivering Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable other skilled in the art to which it appertains to make and use the same.

The present invention relates to improvements in mail bag catching and delivering apparatus, and it has for its principal object the provision of means for effecting the transfer of a mail bag from a moving train to the receiving station, and vice versa, such transfer being effected automatically in both instances as the train passes the station.

To this end, such apparatus, whether carried by the car or located at the station, comprises, in brief, a vertical support provided with upper and lower swinging arms arranged to engage the mail bag, and a catcher carried by said support and located between said arms, which latter are retained in operative position by the weight of the mail bag engaged therewith, and are swung into vertical position by the action of a spring, immediately upon the removal of the mail bag.

The invention further resides in the particular construction of the catcher, and in the attachment to each end thereof, of a spring arranged for engagement with the mail bag to retain the latter in the seat in which it is received upon its removal from the supporting arms.

The preferred embodiment of the invention is illustrated in the accompanying drawings, in which corresponding parts are designated by the same reference characters throughout the several views.

Of the said drawings, Figure 1 is a perspective view of the complete invention. Fig. 2 is a plan view thereof. Figs. 3 and 4 are side elevations, respectively, of the devices carried by the car and by the crane located at the receiving station, illustrating the position of the parts thereof after the transfer of the mail bags has been effected. Figs. 5 and 6 are plan views, respectively, of the car and crane carried catchers.

Referring more particularly to the drawings, 1 designates generally the car, 2 the door way formed in one of the sides thereof

and 3 the bar to which the supporting and catching devices hereinafter described, are secured, said bar being fastened to one or the other of the side walls of the door way in any preferred manner and having its outer end projecting the requisite distance therebeyond in order to maintain said supporting and catching devices in proper position.

The supporting devices by which the mail bag is carried prior to its transfer to the apparatus at the receiving station, consists primarily of a vertically-disposed rod 4 secured centrally to the outer end of the bar 3, and a pair of arms 5 secured to the ends of said rod in such a manner as to permit their movement in vertical planes into and out of horizontal position, the inner ends of said arms having a pivotal connection 6 with the rod ends. To effect the requisite connection, the ends of the rod are bifurcated, and the inner ends of the arms 5 are reduced, so as to fit in said bifurcations, the pivot bolts extending through registering openings formed in the rod ends and in the ends of the arms at such points.

Each arm 5 above referred to carries a short rod 7 which is disposed in alignment therewith and extends beyond the outer or forward end thereof in position for engagement with the rings which are secured to the ends of the mail-bag in the usual manner. The arms 5 are normally forced in opposite directions, owing to the tension thereagainst of the ends of a stiff leaf spring 8 secured centrally to the rod 4, the pressure of the spring holding said arms in approximately horizontal position when the mail bag is engaged with the rods 7.

The catcher which is likewise secured intermediate its ends to the outer end of the bar 3 is formed by a horizontally-disposed steel rod 9, whose ends are provided with integral hook-shaped extensions 10, the outer arm or bill 11 of each hook projecting beyond the corresponding end of said bar 9. The formation of these extensions thus results in the provision of seats 12 arranged to receive the mail bag according as the train approaches the station from one side or the other. The delivered mail bag is retained in place in its seat by means of a spring arm 25 which extends thereacross, there being such a spring in connection with each extension as will be understood.

The complementary apparatus located at the receiving station is carried by a crane

comprising a vertical post 13 braced in any desired manner and provided with upper and lower arms 14 pivoted thereto intermediate their ends, the rear end of each arm having pivoted thereto one end of a rod 15, the other ends of said rod extending into the bore of a vertical pipe 16 connected to the post 13 by upper and lower brackets 17. The last-mentioned ends of the rods 15 are connected by a retractile coil-spring 18 which is disposed within the pipe 16 the tension of said spring normally forcing the rear ends of the arms 14 towards and the front ends thereof away from each other. At its forward end, each arm 14 carries a rod 19 which projects beyond said end and is adapted to be passed through the ring at the corresponding end of the mail bag to be transferred to the car. The length of the rods 19 is sufficient to dispose the mail bag last mentioned, in position to be engaged by one or the other of the hooked extensions 10 of the car-carried catcher, according to the direction in which the mail train is traveling.

The crane catcher is formed by a T-shaped block of wood or steel which projects laterally from the post 13 and has the free end of its stem 20 hinged to the latter, as indicated by the numeral 21. This catcher is disposed midway between the arms 14 and its stem 20 lies in the vertical plane of said arms. The cross arm 22 of the catcher has its ends formed with inwardly extending notches or bifurcations 23 which provide seats adapted to receive the mail bag removed from the car-carried apparatus. Across each of these seats or notches projects a spring 24 similar to the springs 25 already described and provided for a similar purpose. The outer legs 26 which are formed by the bifurcations or notches above referred to, project beyond the inner legs 27, as shown. The catcher, as a whole, is held in horizontal or operative position by means of a wire 28 secured at one end thereto and at the other end to a cord 29 which is passed around the post 13 adjacent the upper arm 14.

In the operation of the invention, the mail bag delivered from the car to the apparatus at the receiving station has its rings engaged with the rods 7 carried by the arms 5 which latter, as stated, are pivoted to the ends of the vertical rod 4, said arms being retained in position by the pressure of the ends of the spring 8 thereagainst. At the same time, the postal clerk in charge of the apparatus at the receiving station engages the mail bag to be delivered to the car with the rods 19 carried by the crane arms 14, and subsequently engages the upper end of the wire 28 with the cord 29. As the train passes the station, one

or the other of the hooked extensions 10 will remove the mail bag from the rods 19, while the mail bag carried by the rods 7 will be removed therefrom by the corresponding end of the cross arm 22, the last mentioned mail bag being received in the seat 23 formed in said end, in which position it is retained by the adjacent spring 24. The weight of the mail bag, however, is sufficient to break the cord above referred to, whereupon the catcher will swing downwardly against the side of the post, carrying the mail bag with it. As soon as the mail bag is removed from the rods 19, the coil spring 18 will cause said arms 14 by which said rods are carried, to swing into vertical position, a similar effect being caused by the spring 8, whose ends bear against the arms 5. The mail bag caught by the hooked extension 10 is in like manner, held against displacement by the corresponding spring 25, said spring, as well as the spring 24, flexing sufficiently during the removal of the mail bags from the supporting arms to permit the passage of the mail bags into the seats.

From the foregoing, it will be understood that the transfer of both mail bags is effected automatically as the train passes the receiving station, and that both transfers take effect at approximately the same moment. Furthermore, the delivered mail bags are held against accidental displacement by the spring arms 24 and 25.

What is claimed is:

A mail bag catching and delivering apparatus comprising, in combination, a vertical supporting member; upper and lower arms pivoted thereto and arranged for swinging movement in a common vertical plane; a rod carried by each arm and projecting beyond the front end thereof, the projecting ends of said rods being arranged for engagement with the rings of a mail bag; a spring having its opposite ends connected with said arms, for normally forcing the same, and said rods away from each other, to hold the mail bag against displacement from said rods; and a horizontally-disposed catcher secured to said supporting member between said arms and extending at right angles to the latter, and to said member, each end of said catcher being provided with a bag-receiving seat and with a member for retaining a delivered bag in place therein.

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

HENRY W. BROWN.

Witnesses:

B. F. SMITH,

H. D. THAMES.