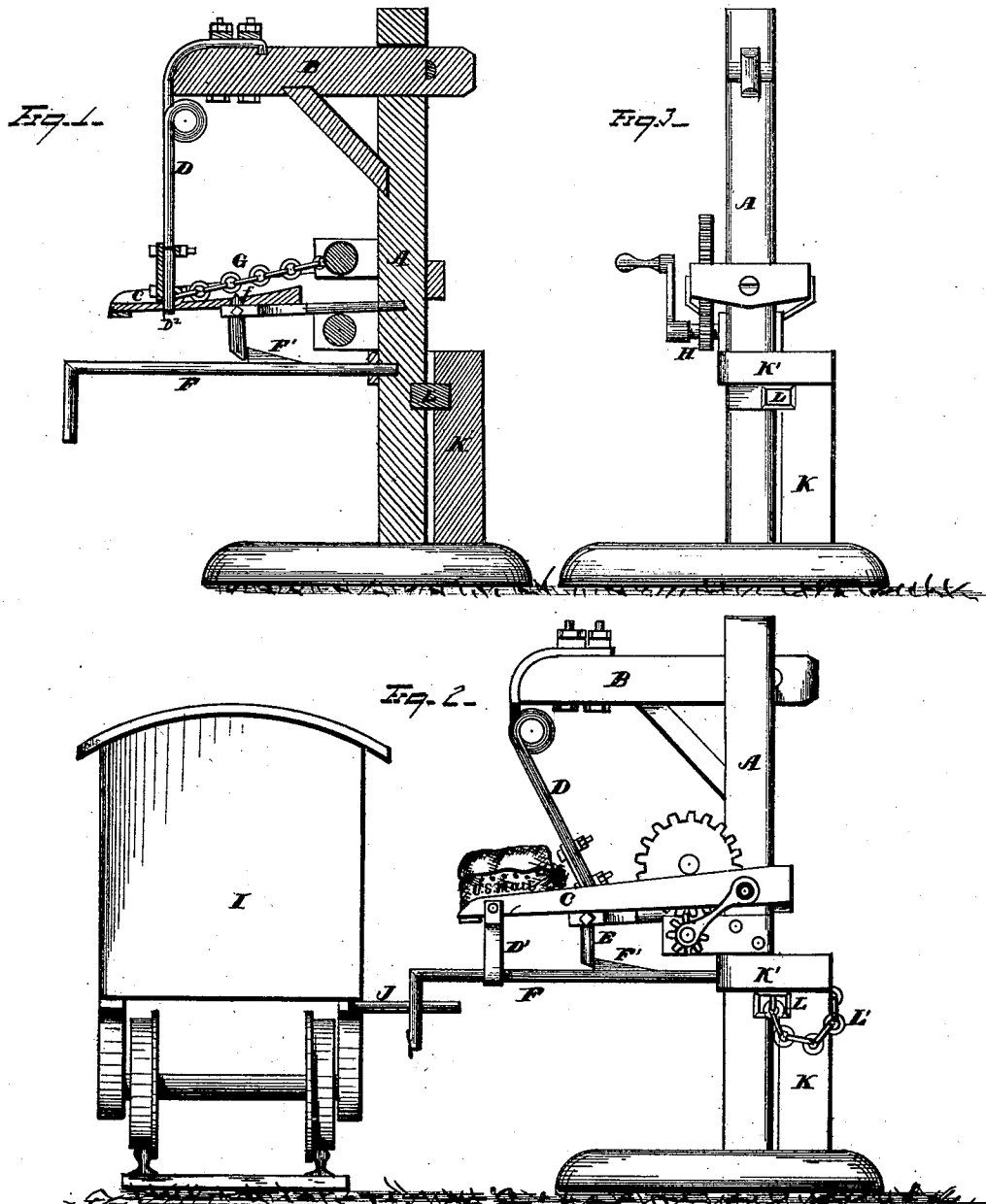


A. J. HARPER.
MAIL-BAG DISCHARGER.

No. 179,787.

Patented July 11, 1876.



WITNESSES
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UNITED STATES PATENT OFFICE.

ALEXANDER J. HARPER, OF HARPERSFIELD, OHIO.

IMPROVEMENT IN MAIL-BAG DISCHARGERS.

Specification forming part of Letters Patent No. **179,787**, dated July 11, 1876; application filed May 9, 1876.

To all whom it may concern:

Be it known that I, ALEXANDER J. HARPER, of Harpersfield, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Mail-Bag Dischargers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in mail-bag dischargers; and consists in the combination of devices and appliances hereinafter specified and claimed.

In the drawing, Figure 1 is a longitudinal vertical section of my improved mail-bag discharger. Fig. 2 represents a car and my mail-bag discharger in use, and shows the mechanism also that is attached to the car. Fig. 3 represents the discharger turned out of the way.

A is an upright; B, an arm projecting out from the top of it; C, a platform upon which the mail-bag rests; D, a strong spring or springs depending from the arm B down to the platform C. D¹ is a hanger projecting below the platform C. E is a catch, the upper edge of which, after the spring has been retracted, prevents its return until the passage of the train. The bottom of this catch E rests at the same time in front of a shoulder, F', on the trip-rod F. G is a chain or cable, which may be attached to the springs to retract them by means of windlass-gear H. I is a car. J is a trip, that may be swung around into a position to strike the trip-rod F when the train passes the mail-bag discharger.

The operation of the device is as follows: The chain G is attached to the spring D, and by turning the windlass H the spring is retracted until the stud D² passes over the catch E. The spring is then released, and the lower part of the catch E is prevented from yielding by the shoulder F' on the trip-rod F. The mail-bag is then placed, as indicated, in front of the spring D upon the platform C. The mail-agent upon the car then, as he approaches the station, with his foot

turns out the trip J, so that in passing it will strike the trip-rod F. When the car, in passing the mail-bag dischargers, trips the rod F, the catch E is released from the shoulder F'; this releases the spring C, which impels the mail-bag into the car.

I prefer to make the springs, substantially as shown in the drawings, of a number of steel rods, though I do not limit myself to this construction, as any suitable spring will answer the purpose. Neither do I limit myself to a spring that shall depend from an arm, B; but the spring may be retained in any suitable manner, so that after it has been recoiled and a bag placed in front of it on the platform C, the spring will, when released, react against the mail-bag and impel it into the car. So, also, I do not limit myself to any particular kind of crank and gear by which to retract the spring. Any suitable mechanism may be employed for that purpose. I prefer to make this mail-bag discharger so as to be readily turned away from proximity to the track when not in use. I, therefore, generally make the upright A to turn upon its own axis. I support it by a collar, K', which is attached to the upright K, and the wedge-block L may serve to hold the uprights in position when ready for use, or hold it in place when turned out of position. For convenience I generally fasten the wedge-block L to the uprights by a chain, L'.

I do not limit myself to any particular kind of trip for employment on the car. Any suitable device that may project from the car so as to strike the trip-rod F will answer the purpose. The one shown, however, at J is very convenient, as it may readily be thrown in or out of place by the foot.

What I claim is—

1. The mail-bag discharger, consisting of the combination, with a mail-bag support, C, of a spring, D, and mechanism for retracting the said spring, and releasing mechanism, whereby a projection from the passing train may release the said spring and impel the mail-bag into the car, substantially as described.

2. The mail-bag discharger, consisting of the combination, with the platform C and spring D, of catch E and trip-rod F, substantially as and for the purpose described.

3. The combination, in a mail-bag discharger, of a mail-bag support and spring for impelling the mail-bag into the car, and mechanism G H for recoiling the said spring, substantially as described.

4. The combination, with the upright adjusted to turn upon its axis, of the support K and removable wedge L, substantially as and for the purpose described.

5. The combination of the catch E and trip-

rod F with the shoulder F' and trip J, substantially as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALEXANDER J. HARPER.

Witnesses:

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JAMES P. WALSH.