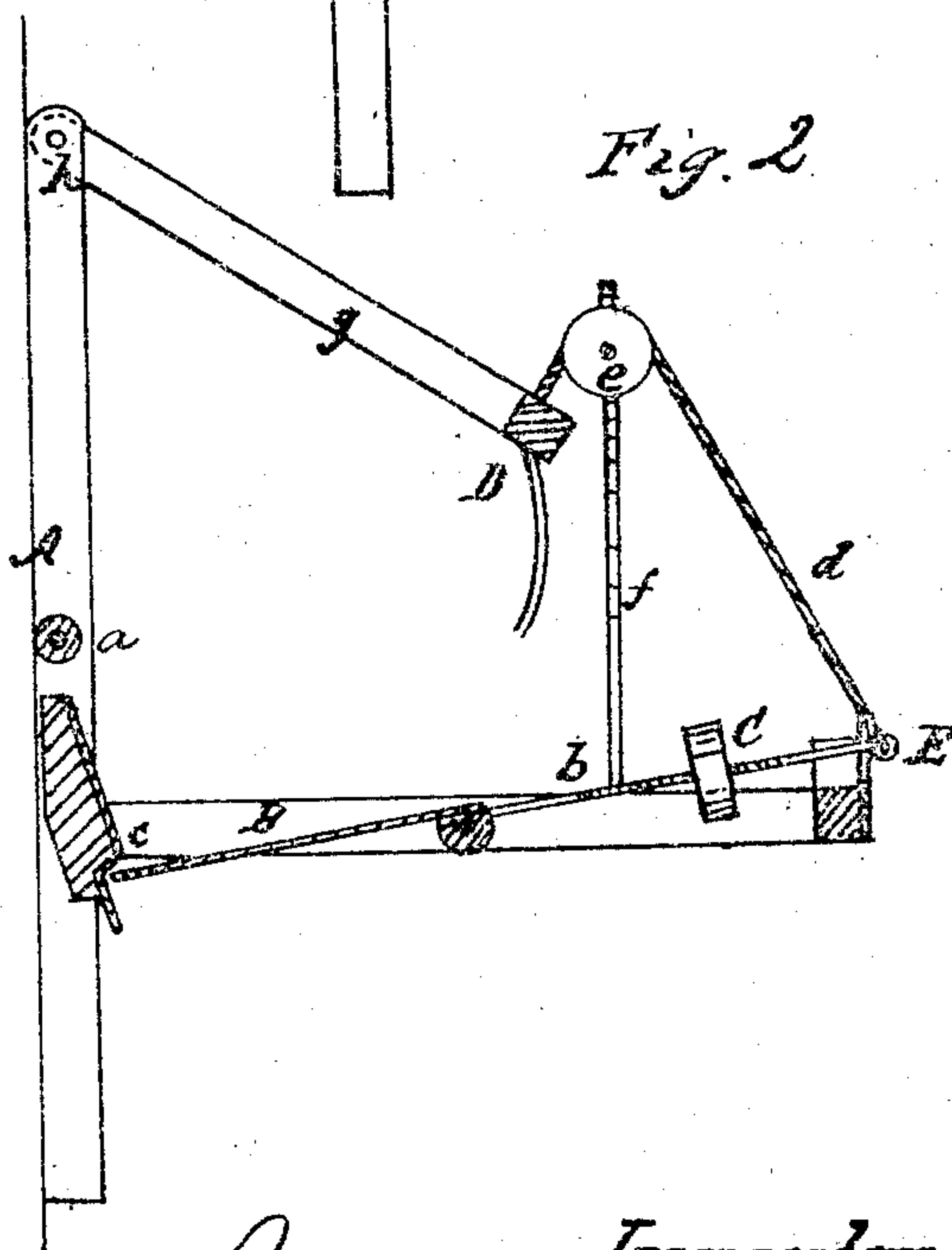
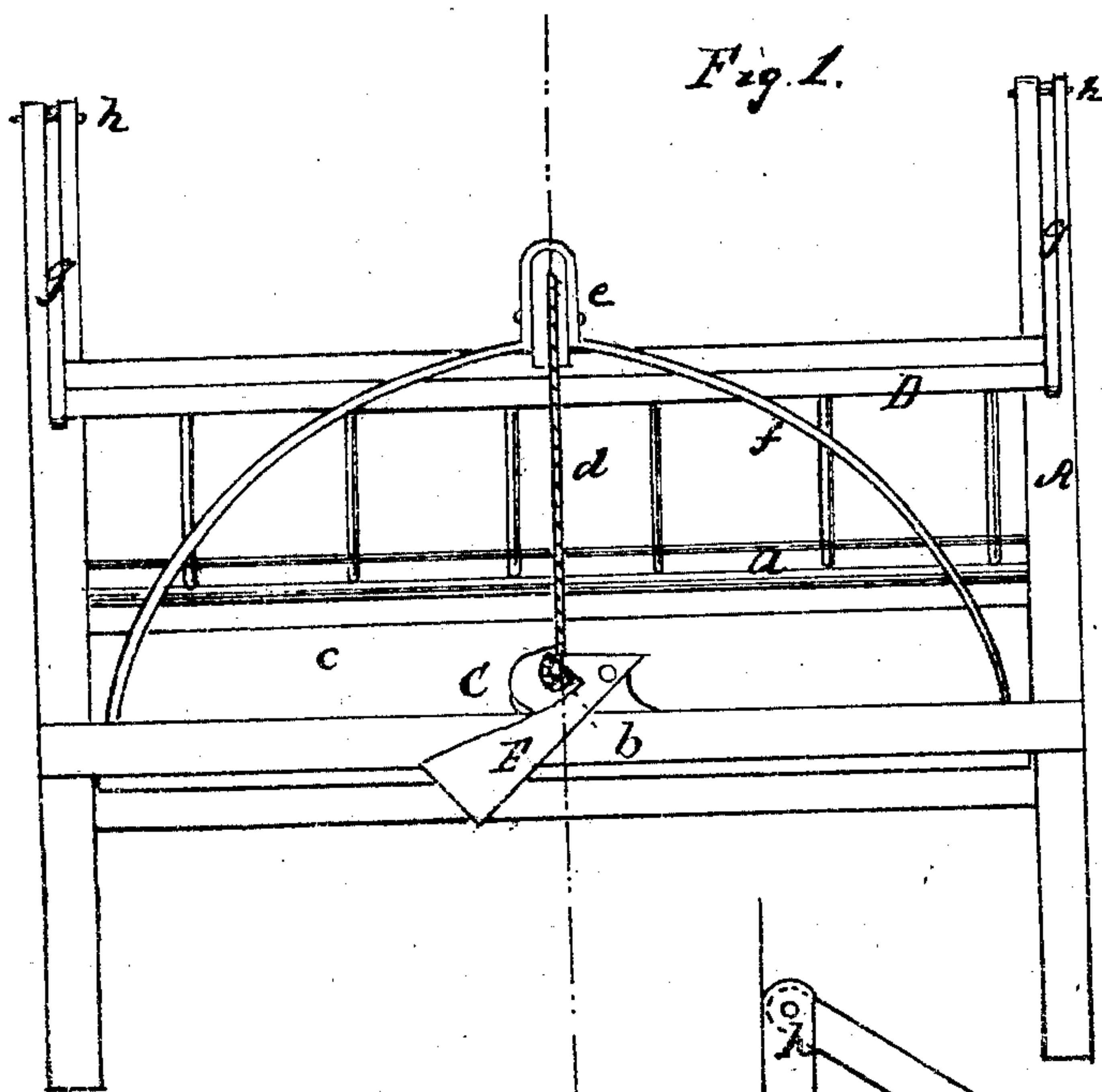


W. Zimmerman.

Harvester Rake.

N^o 55758

Patented Jun. 19, 1866



Witnesses.

Wm E Lyon
Wm Frewin

Inventor.

Wm Zimmerman
By *[Signature]*
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM ZIMMERMAN, OF OSKALOOSA, IOWA.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 55,758, dated June 19, 1866.

To all whom it may concern:

Be it known that I, WILLIAM ZIMMERMAN, of Oskaloosa, in the county of Mahaska and State of Iowa, have invented a new and Improved Gavel-Discharging Device for Harvesters; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an end view of my invention; Fig. 2, a side sectional view of the same, taken in the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved gavel-discharging device for harvesters, whereby gavels of greater or less size may be discharged as desired, and the device made to operate with certainty and in a perfect manner.

The invention is designed to operate in connection with an endless apron—a means used on some harvesters for discharging the cut grain from the machine.

A represents a framing which is attached to one end of the platform of a harvester, and having a roller, *a*, placed in it, over which the endless apron works and conveys the cut grain to the device. (See Fig. 2.)

In the framing A there is hung or suspended a flap or door, B, having a rod, *b*, projecting from it, on which a counterpoise, C, is fitted. This counterpoise should be adjustable, and it may be made like a nut, to work upon a screw-thread cut on rod *b*. This counterpoise is designed to keep the end of the flap or door B in contact with a plate, *c*, in the framing A, as will be fully understood by referring to Fig. 2.

The outer end of the rod *b* has a cord, *d*, attached to it, and this cord passes over a pulley, *e*, in a bar, *f*, in the framing A, and is connected to a rake, D, having an arm, *g*, at each end of it, said arms being pivoted in the framing A, as shown at *h h*.

By this arrangement it will be seen that when the flap or door B falls the rake D will descend and take its place, and when the flap or door rises the rake D will also rise.

The endless apron conveys the cut grain to the device and deposits it upon the flap or door B, which retains it until the gravity of the grain will overcome that of the counterpoise C, when the flap or door B will fall or drop and discharge the gavel, the flap or door immediately rising after the discharge of the gavel.

As the flap or door drops the rake D also drops, and retains the cut grain delivered by the apron until the flap or door rises, when the rake also rises out of the way.

The size of the gavels may be regulated by adjusting the counterpoise C. The farther the latter is turned out on the rod *b* the greater will be the weight required to force down the flap or door B, and consequently the larger will be the gavel.

I would remark that I employ a catch, E, at the outer part of the framing A, to engage with the outer end of the rod *d* of the flap or door. This catch serves to hold the flap-door until a sufficient quantity of cut grain is upon it, and then releases the flap or door suddenly, the rod *d* disengaging itself from the catch.

The device may be constructed and applied at a small cost, and used on any reaper to which an endless carrying-belt may be applied.

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

The combination of the door B, screw-rod *b*, counterpoise C, spring-catch E, cord *d*, bar *f*, rake D, and pivoted arm *g*, arranged relatively to each other, and with the endless carrying-apron roller *a*, and operating in the manner and for the purpose herein specified.

WILLIAM ZIMMERMAN.

Witnesses:

SAMUEL THOMPSON,
M. S. JACKSON.