

C. A. DEFAUCONPRET.

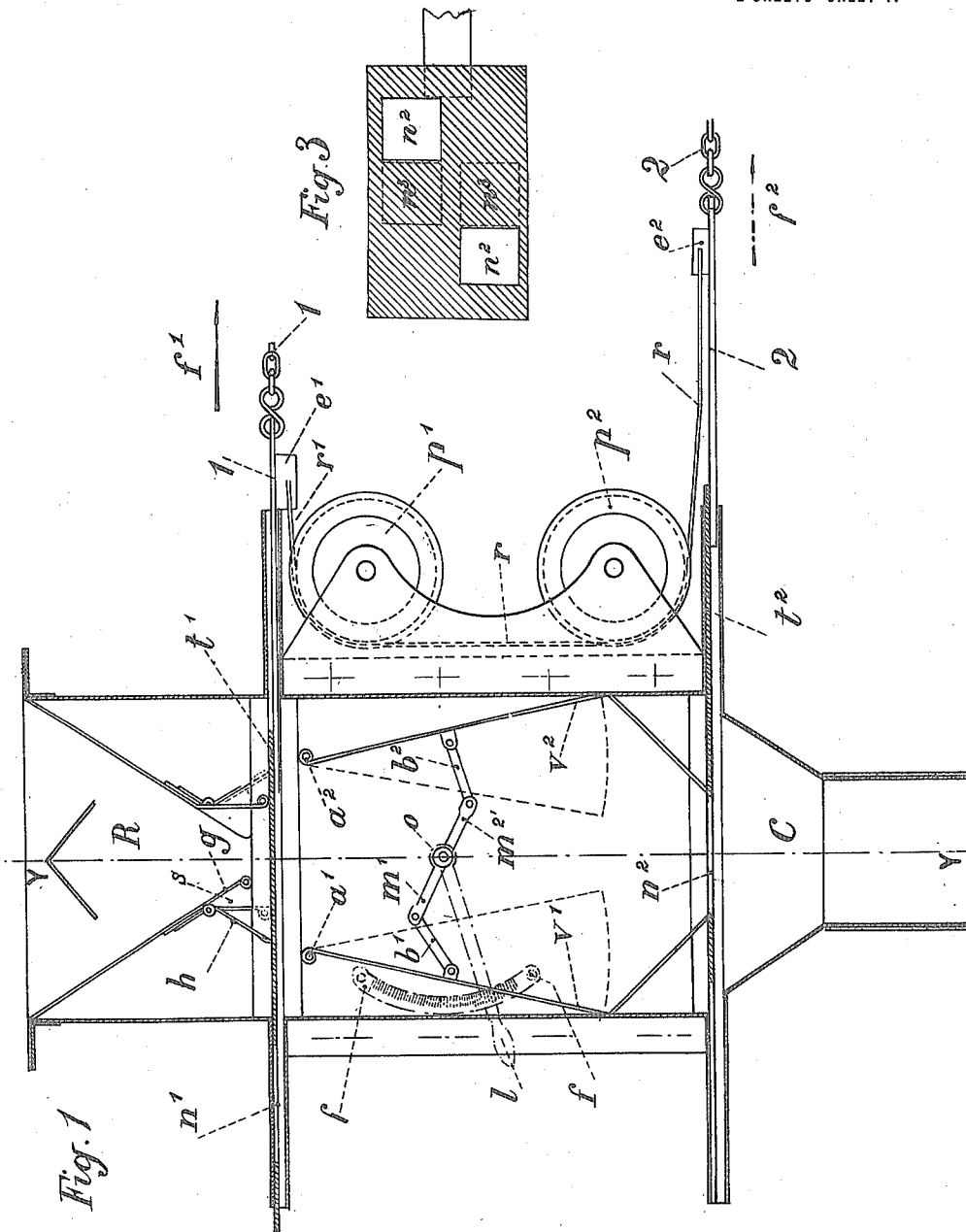
DELIVERING OR BAGGING APPARATUS.

APPLICATION FILED MAR. 6, 1919. RENEWED APR. 12, 1922.

1,417,040.

Patented May 23, 1922.

2 SHEETS—SHEET 1.



Inventor

Charles Auguste Defauconpret

by 

his Attorney

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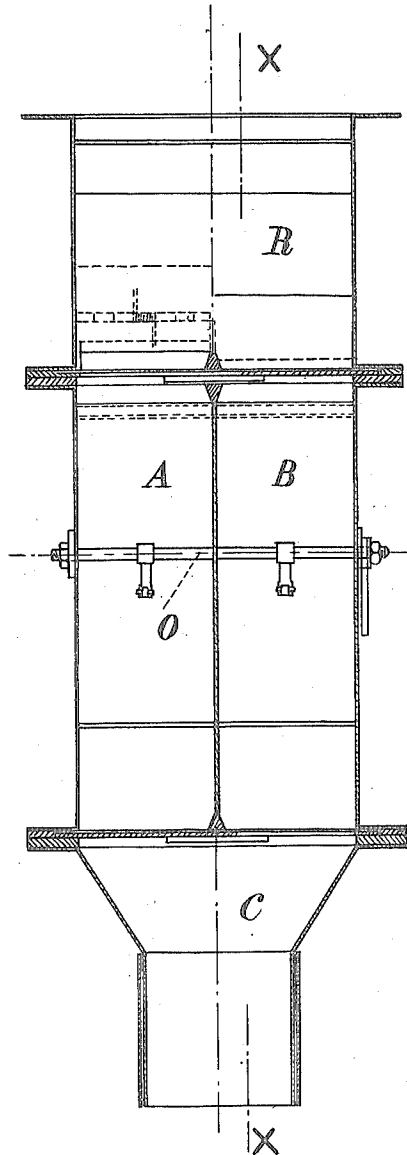
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Fig. 2



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UNITED STATES PATENT OFFICE

CHARLES AUGUSTE DEFAUCONPRET, OF PARIS, FRANCE.

DELIVERING OR BAGGING APPARATUS.

1,417,040.

Specification of Letters Patent.

Patented May 23, 1922.

Application filed March 6, 1919, Serial No. 280,932. Renewed April 12, 1922. Serial No. 552,063.

To all whom it may concern:

Be it known that I, CHARLES AUGUSTE DEFAUCONPRET, citizen of the Republic of France, residing at 7 Place Péreire, Paris, in the Republic of France, have invented new and useful Improvements in Delivering or Bagging Apparatus, of which the following is a specification.

This invention relates to an improved apparatus for delivering pulverulent granular or fragmentary material in measured quantities and preferably comprises two measuring compartments or chambers, the capacity of which may be adjusted by means of plates. The filling up and emptying of the two compartments are effected alternately (one of the compartments being filled while the other is emptied) and controlled by two suitably actuated slide valves. The slide valves are prevented from being jammed when the grain is fed into the apparatus by means of inclined surfaces in combination with spring mounted scrapers. By means of said apparatus, different materials may be successively delivered into sacks or any other receptacles in measured quantities without requiring any special attention from the operator as the capacity of the measuring chambers may be easily adjusted by means of a lever movable on a graduated sector, the graduations of which correspond to those set out on a previously prepared table and indicating weights and corresponding volumes of the different materials to be handled.

In the accompanying drawings:

Fig. 1 is a vertical section along the line X—X, Fig. 2, of the improved apparatus.

Fig. 2 is a vertical section along the line Y—Y, Fig. 1.

Fig. 3 is a diagrammatical plan view on a reduced scale of one of the controlling slide valves.

As shown in the drawings, the apparatus is composed of two rectangular, juxtaposed chambers A, B, Fig. 2 which may be put alternately in communication either with the upper feeding bin R containing the material to be bagged, or with a lower hopper or spout C adapted to feed the material into the sacks or boxes to be filled. The communication is controlled by means of two slide valves t^1 , t^2 provided with two rectangular openings n^1 — n^1 and n^2 — n^2 respectively, which are diagonally arranged as shown in

Fig. 3, in which the two dotted squares n^3 , n^3 correspond on a reduced scale to the horizontal cross section of the measuring chambers A—B. The slide valves are operated by means of rods and chains 1 and 2, which are alternately actuated by means of two foot levers. When either slide valve is pulled in one direction, the other slide valve is displaced in the reverse direction, the slide valves being connected by means of a steel band r running on rollers p^1 , p^2 and having its ends respectively connected at e^1 , e^2 to the slides.

The stroke of the slide valves is so calculated that when the slides occupy their extreme position in one direction, one of the measuring compartments, A, for instance, is in communication with the upper bin R and cut off from the lower hopper C while the other measuring compartment B is cut off from R and in communication with C. Inversely, when the other operating rod is actuated both slide valves come to reverse positions and when the slide actuating means are in their middle position, the valves are stopped in the middle of their stroke so that the compartments A and B are simultaneously cut off from the reservoir R and hopper C. This is clearly illustrated in Figure 3 which shows that in the middle position of the slide valve t^2 , for instance, both measuring chambers A and B, which are here represented by the dotted squares n^3 — n^3 are closed at the same time.

In each of the measuring chambers A and B, are provided two pivoted plates v^1 , v^2 which are of the same width as the said chambers and can rotate about axes a^1 , a^2 under the action of a hand lever l acting through the medium of a shaft o and links m^1 , m^2 and b^1 , b^2 , said lever permitting the capacity of the measuring chambers A, B, to be increased or decreased. Said capacity may be adjusted very accurately as the lever l may be displaced and fixed at any desired point between two superimposed sectors f , f , the lower one of which is serrated while the upper one is graduated. The sectors act as guides and holders and allow the lever to be securely held at any desired point of its stroke. A table, prepared beforehand, will indicate, for the different materials to be handled, the weights and volumes corresponding to the numbers of the graduation

on the upper sector, whereby rapidity and accuracy of operation on the part of the operator are assured.

At the lower end of the reservoir R, an arrangement is provided for preventing the material from being choked or clogged within the openings of the slide valve while they are being actuated. For that purpose, free spaces *s* triangular in cross section are formed below the lower part of the inclined surfaces *g* of the reservoir R, and spring actuated scrapers *h*, are provided adjacent the opening *s* in which the material in excess pushed forward by the corresponding edges of the slide valve may be accommodated. Should however an excessive amount of material be forced into said free spaces, the material in excess would raise slightly the scrapers *h* which, upon the following opening movement of the slide, would cause the material in excess to drop into the corresponding measuring compartment.

In operation, after having set the inclined plane *g* of the feeding bin R so as to leave a passage of the desired section for the material to be handled, the hand lever *l* is moved over the graduated sector to the required number read from the table, whereby the plates *v*¹ *v*² are brought to such a position that the measuring chambers A and B are given a capacity corresponding to the quantity of grain or other material to be delivered at each operation.

It will then be merely necessary for the operator to alternately move the slide valves, the filling up of one causing the compartments A or B and the delivery from the other of said compartments into the hopper C. The speed of operation is only limited by the time required for placing the sacks or boxes under the orifices of the hopper C. Suitable arrangements may be provided for absorbing the shocks produced

by the slide valves at the end of their strokes.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A delivering apparatus comprising in combination a measuring chamber, a feeding reservoir located above said measuring chamber and having at its bottom a passage adapted to be put in communication therewith, a reciprocating slide valve provided with an opening adapted to be brought into or out of register with the said passage, an inclined plate projecting into the said passage and a spring mounted scraper at the outer side of said inclined plate, substantially as described and for the purpose set forth.

2. A delivering apparatus comprising in combination a measuring chamber, a feeding reservoir located above said measuring chamber and having at its bottom a passage adapted to be put in communication therewith, a reciprocating slide valve provided with an opening adapted to be brought into or out of register with the said passage, an inclined plate projecting into the said passage, a spring mounted scraper at the outer side of said inclined plate, pivoted plates mounted in said measuring chamber and adapted to vary the capacity of said chamber, said pivoted plates having their upper ends some distance below the said slide valve and means for displacing said pivoted plates, the measuring chamber having an outer wall provided at the outer side of the scraper and extending upwardly up to the under face of the slide valve so as to arrest any material carried over by said slide valve, substantially as described.

In testimony whereof I have signed my name to this specification.

CHARLES AUGUSTE DEFAUCONPRET.