

(No Model.)

B. SEIDEL.
GRAIN ELEVATOR.

No. 455,432.

Patented July 7, 1891.

Fig. 1.

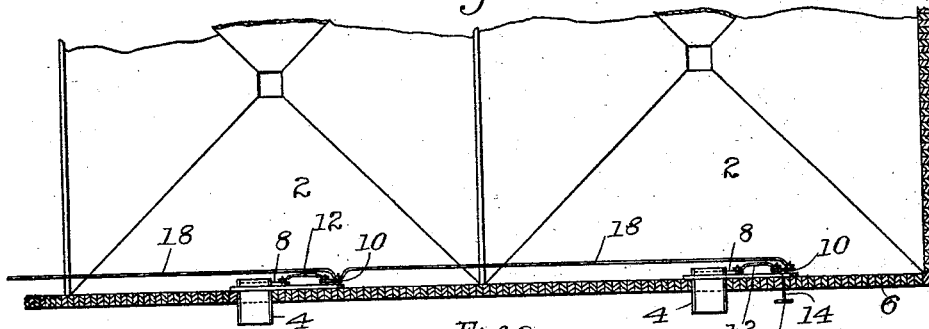


Fig. 2.

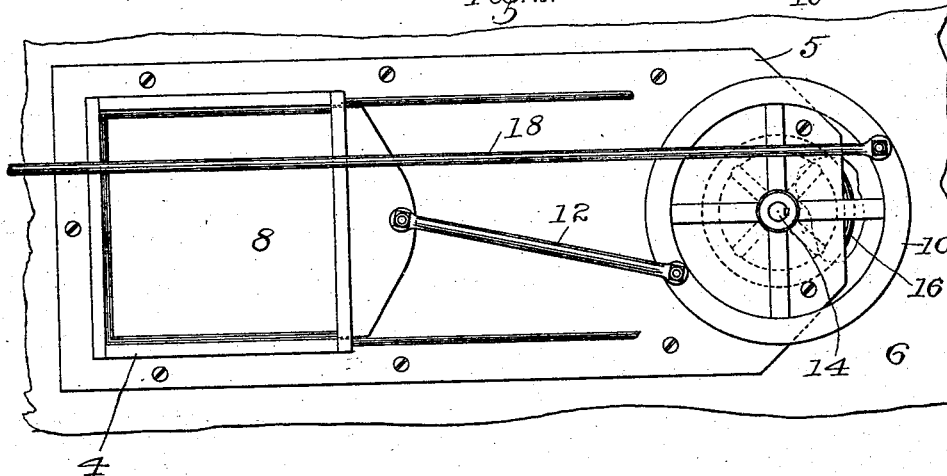
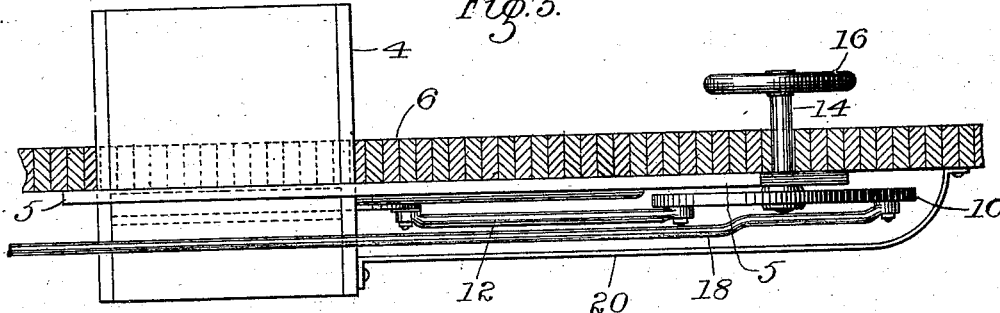


Fig. 3.



Witnesses:-
C. S. Caldwell.
O. W. W. W.

Inventor:-
Benjamin Seidel,
per, Paul D. Munn
Attorneys.

UNITED STATES PATENT OFFICE.

BENJAMIN SEIDEL, OF COKATO, MINNESOTA.

GRAIN-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 455,432, dated July 7, 1891.

Application filed February 10, 1891. Serial No. 380,888. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN SEIDEL, of Cokato, Wright county, Minnesota, have invented certain Improvements in Grain-Elevators, of which the following is a specification.

My invention relates to improvements in the construction of ordinary grain-elevators, its object being to provide means for the discharge of the contents of the storage-bins outside of the elevator in case of fire, whereby the grain stored therein can be saved.

To this end my invention consists in arranging a system of chutes in the several bins extending through the outer wall of the elevator and providing gates in said chutes connected together by a suitable mechanism, which may be operated in time of emergency to simultaneously open all of the gates and allow the contents of all the bins to flow out through the chutes.

My invention further consists in the construction and combination hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a partial horizontal section of an elevator through the bins thereof, showing the arrangement of my improved chutes and the operating mechanism. Fig. 2 is a detail elevation of one of the chutes and its gate-operating mechanism, showing also the connecting-rod extending from its crank-wheel to the next; and Fig. 3 is a plan view of the same, the walls being shown in section.

In the drawings, 2 2 are the grain-storage bins of the elevator, of ordinary construction. Arranged in the side walls of the bins are the chutes 4, extending through the outer wall 6 of the elevator, and secured, preferably, to the back board or frame 5, secured upon the wall. Arranged in each of these chutes is a sliding gate 8 for closing the same. This gate is operated by means of a crank-wheel 10 and connecting-pitman 12. The shaft 14 of one of the wheels 10 is journaled in the wall of the elevator, extending through the same, and is fitted with the hand-wheel 16, by means of which the wheel 10 may be operated by one

from the outside of the structure. The wheel 10, which is provided with the hand-wheel 16, is connected by means of the rod 18 with the corresponding crank-wheels of the gates of the other bins of the series. It will thus be seen that by the turning of the hand-wheel 16 the gates of all of the chutes of the series are simultaneously operated. In order to protect the gate and its operating mechanism, any preferred means may be employed—as, for example, a shield or protector 20 may be arranged in the inside of the bin, inclosing the mechanism and preventing the contact of the grain with it.

I claim—

1. In a grain-elevator, the combination, with its storage-bins, of discharge-chutes extending therefrom to the outside of the elevator, sliding gates in said chutes, cranks and pitmen for sliding said gates, and rods connecting together said cranks, whereby all may be operated simultaneously by the turning of one of said cranks, substantially as and for the purposes set forth.

2. In a grain-elevator, the combination, with its storage-bins, of discharge-chutes therein extending through the outer wall of the elevator, sliding gates in said chutes, a crank and pitman for operating one of said gates, and suitable connections between said gate and the other gates, whereby all may be operated simultaneously, substantially as described.

3. In a grain-elevator, the combination, with its storage-bins, of discharge-chutes extending therefrom through the wall of the elevator, gates in said chutes, a crank-wheel journaled in the wall of the elevator and connected to one of said gates, a hand-wheel upon the outer end of its shaft, and suitable connections between the several gates, whereby said gates are simultaneously operated by turning said hand-wheel, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my hand this 4th day of February, 1891.

BENJAMIN SEIDEL.

In presence of—

F. B. LAMSON,
SARAH GLEASON.