J. NICHOLS.

GRAIN ELEVATOR.

No. 45,515. Patented Dec. 20, 1864.

Fig: 1.

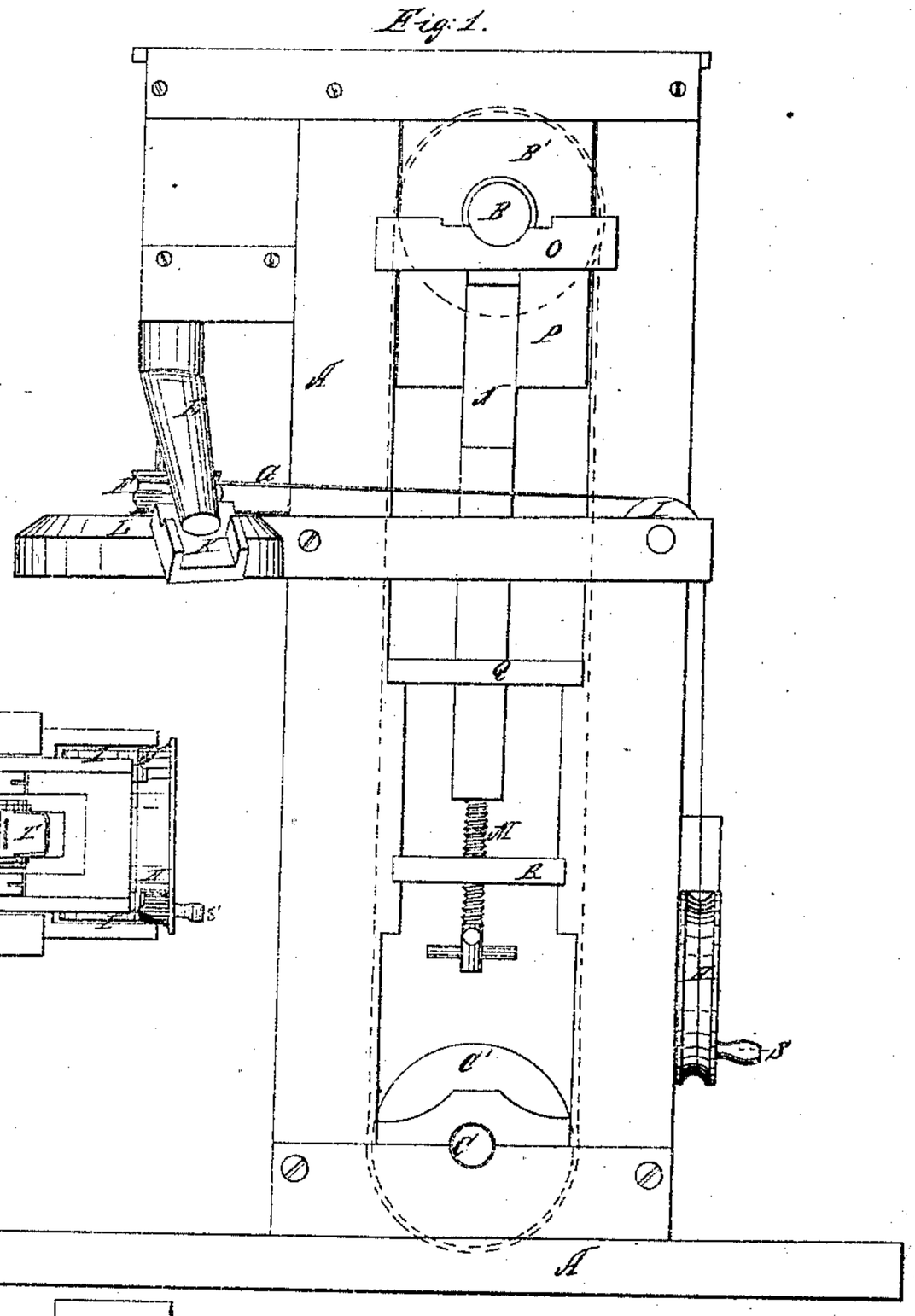


Fig: 2.

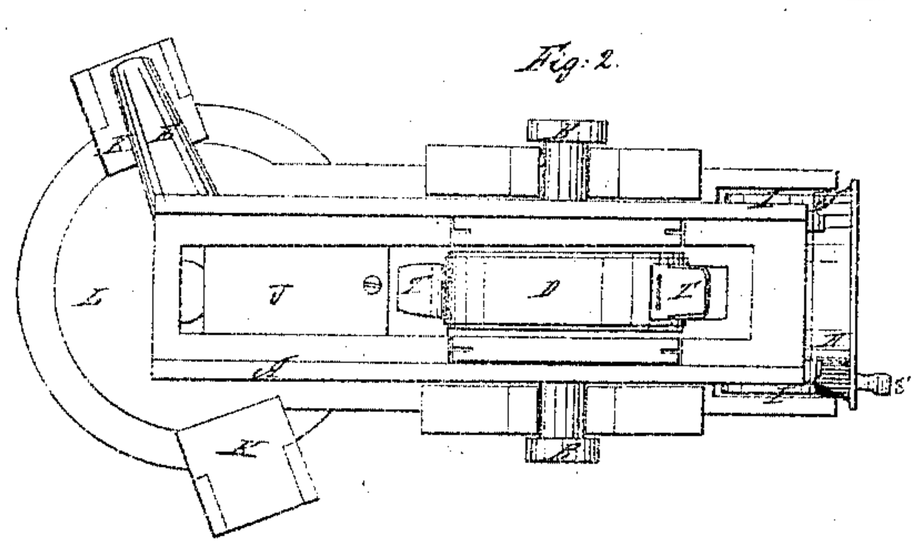
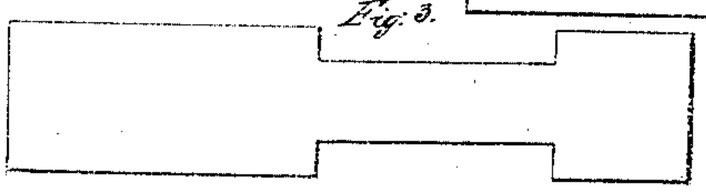


Fig: 3.



Witnesses:

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Inventor:

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by his atty

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UNITED STATES PATENT OFFICE.

JOHN NICHOLS, OF FOND DU LAC, WISCONSIN.

IMPROVED GRAIN-ELEVATOR.

Specification forming part of Letters Patent No. **45,515.** dated December 20, 1864.

To all whom it may concern:

Be it known that I, JOHN NICHOLS, of Fond du Lac, in the county of Fond du Lac and State of Wisconsin, have invented a new and useful Improvement in Grain-Elevators; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists in a peculiar arrangement and combination of devices for elevating and distributing grain.

In the accompanying drawings, Figure 1 is a side view of my improved grain-elevator. Fig. 2 is a top view of the same, the top board being removed to show the endless belt and grain-buckets. Fig. 3 is a view of the top board detached from the machine.

In the construction of my improved grain-elevator any suitable frame, A, is erected for the support of the two pulley-shafts B and C. Upon these two shafts are pulleys C′ and B′, operated in the usual manner. An endless belt, D, is carried by the pulleys. This belt is provided with a series of grain-buckets, F, in the usual manner. When a bucket of grain is elevated, the bucket empties its load upon the plate U, Fig. 2, from which the grain flows into the spout E, and is thence discharged upon the spout K. The spout E is arranged so as to revolve at pleasure in order to direct the grain to any point in the circumference of the circular table L, and empty the same into the different spouts K, which are placed to direct the grain into different bins or to different parts of the building.

In the lower story of the mill or store-house I have arranged a dial-wheel, H, which also acts as a pulley for the cord or band G. This band passes up over the pulleys I, and thence around the pulley F upon the shank or shaft of the revolving spout E. By this arrangement the miller in the lower story of the mill can take hold of the handle S, and by thus turning the wheel H he can turn the spout E in any direction, while the index on the face of the pulley H will indicate in exactly what direction the revolving spout E is pointing. Thus the miller, without going up stairs, can direct the flow of grain, and also know the course it takes.

The dial on the face of the pulley corresponds to the circular table L in the upper part of the mill, and as the dial turns the index shows in what direction the spout E is conducting the grain. This circular table L is permanently fastened to the elevator-frame A, so that the frame, the table, and the spout E will always maintain a working position, and not be disturbed by the settling or lurching of the building.

The endless belt D may be tightened by means of the screw M, which is more fully described in another application, in which I especially claim an improvement in belt-tighteners.

I do not broadly claim the use of a revolving spout or index, but confine my claim to the peculiar arrangements and improvements above described.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The arrangement and combination of the index-wheel H with the revolving spout E, operated by pulleys and band, substantially in the manner and for the purposes set forth.

2. The use of the circular table L, attached to the elevator-pipe A, substantially as described.

3. The combination of the table L with the elevator-frame and the revolving spout, substantially as specified.

4. The use of the pulleys I, in combination with the vertical pulley H and horizontal pulley F and band G, substantially as specified.

JOHN NICHOLS.

Witnesses:

GEO. W. SAWYER,

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