D. WILCOX.

Grain Winnower.

No. 94,052. Patented Aug. 24, 1869.

Fig. 2.

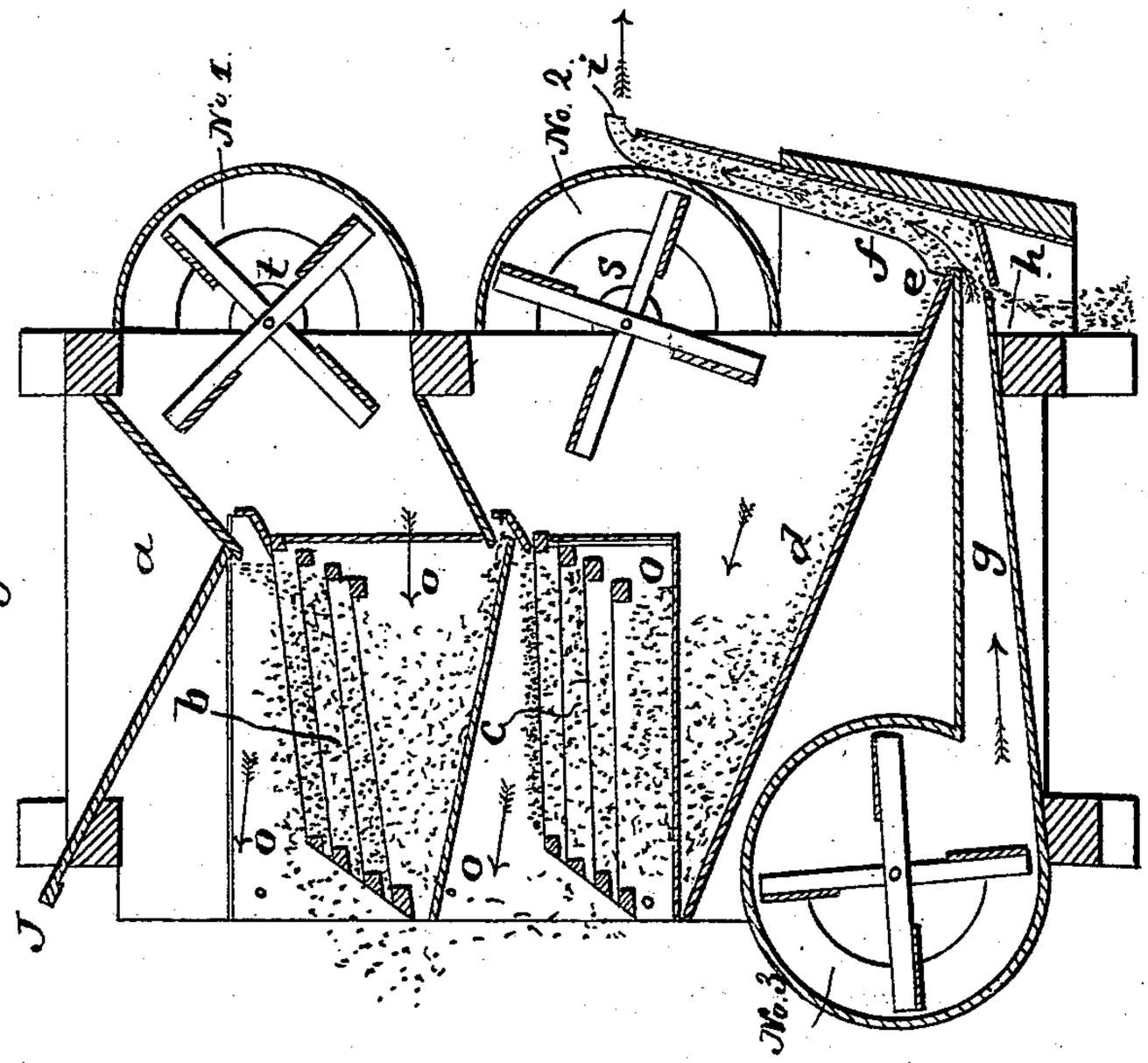
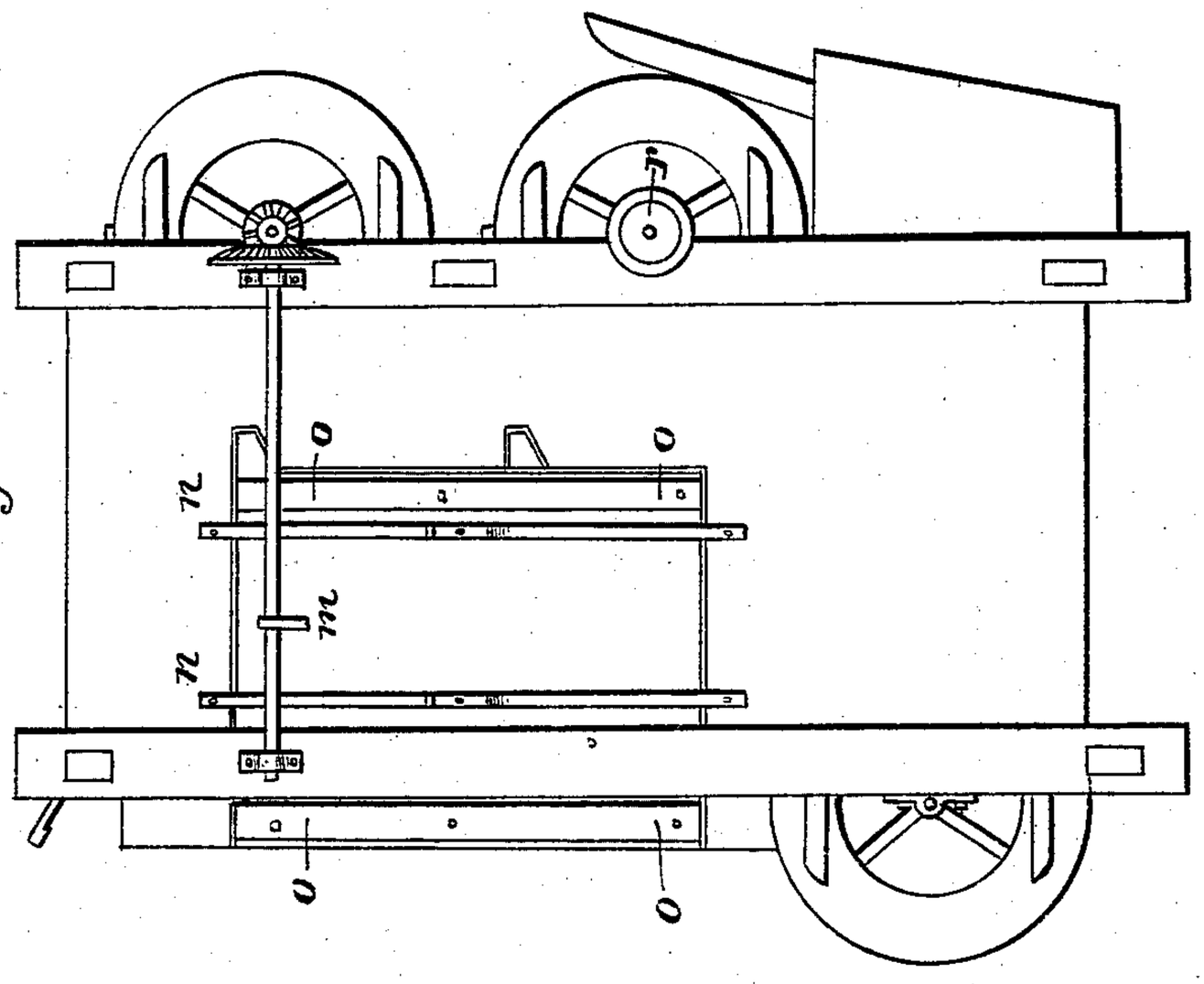


Fig. 1.



Witnesses:
C A Matthews
Fred Thomas.

Inventor.
Davis Wilcox by
H.W. Beadle atty

United States Patent Office.

DARIUS WILCOX, OF CHARITON, IOWA.

Letters Patent No. 94,052, *dated August* 24, 1869.

IMPROVEMENT IN FANNING-MILLS AND GRAIN-SEPARATORS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, DARIUS WILCOX, of Chariton, in the county of Lucas, and State of Iowa, have invented a new and useful Improvement in Fanning-Mill and Grain-Separator; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to an improved fanning-mill, and consists, mainly, in the combination and arrangement of the various parts, by means of which an improved result is obtained. The details of construction and manner of operation will be fully described hereinafter.

In the drawings—

Figure 1 represents a side elevation, and

Figure 2, a central vertical section of my improved mill.

To enable others skilled in the art to make and use my invention, I will now proceed to describe fully its construction and operation.

a represents a hopper, into which the grain is placed.

This is provided with a slide, J, by means of which the opening is varied, and the delivery of the grain regulated.

b represents the first set of riddles. These are constructed in any suitable manner, and arranged in any suitable way.

No. 1 represents the first fan. This is so arranged that its blast is forced into the chamber *o'*, and is thus compelled to pass through the riddles *b* before it can pass from the machine. By this arrangement every portion of the grain is reached.

After passing through the riddles *b*, the grain falls upon the board *k*, which, being inclined, conducts it to the second set of riddles, *c*. Here the grain is again acted upon in a similar manner, by means of fan No. 2.

Passing through these riddles, the grain falling upon the inclined board *d*, is delivered at the mouth of the air-chamber *g*. The blast of air at this point is received from fan No. 3, and passes out through the spout *f*, as shown.

This arrangement is a very desirable one, as it will be seen, by carefully inspecting fig. 2 of the drawing, that the grain is directly exposed to the blast for some little time before it is delivered at *h*, it being compelled, as it were, to pass three sides of a square while exposed to the blast.

The fans and riddles may be operated by any suitable system of pulleys and gearing. I preferably operate the riddles by means of an eccentric, *m*, which gives these the proper reciprocating motion.

The springs *n* extend entirely across the opening in the mill, and are secured to the riddle-case at about the centre, being suitably bent inward for that purpose.

By the arrangement described, a compact and efficient fanning-mill is obtained.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The fans, Nos. 1, 2, and 3, when arranged substantially as described, for the purpose set forth.

2. The mill described, consisting essentially of the hopper *a*, riddles *b c*, grain-boards *k d*, and fans 1, 2, 3, when combined and arranged as and for the purpose described.

This specification signed and witnessed, this 21st day of June, 1869.

DARIUS WILCOX.

Witnesses:

J. RAY,

C. F. BRANT.