

# BIRDSALL & COGSWELL.

## Harvester Rake.

No. 44,847.

Patented Nov. 1, 1864.

Fig. 1.

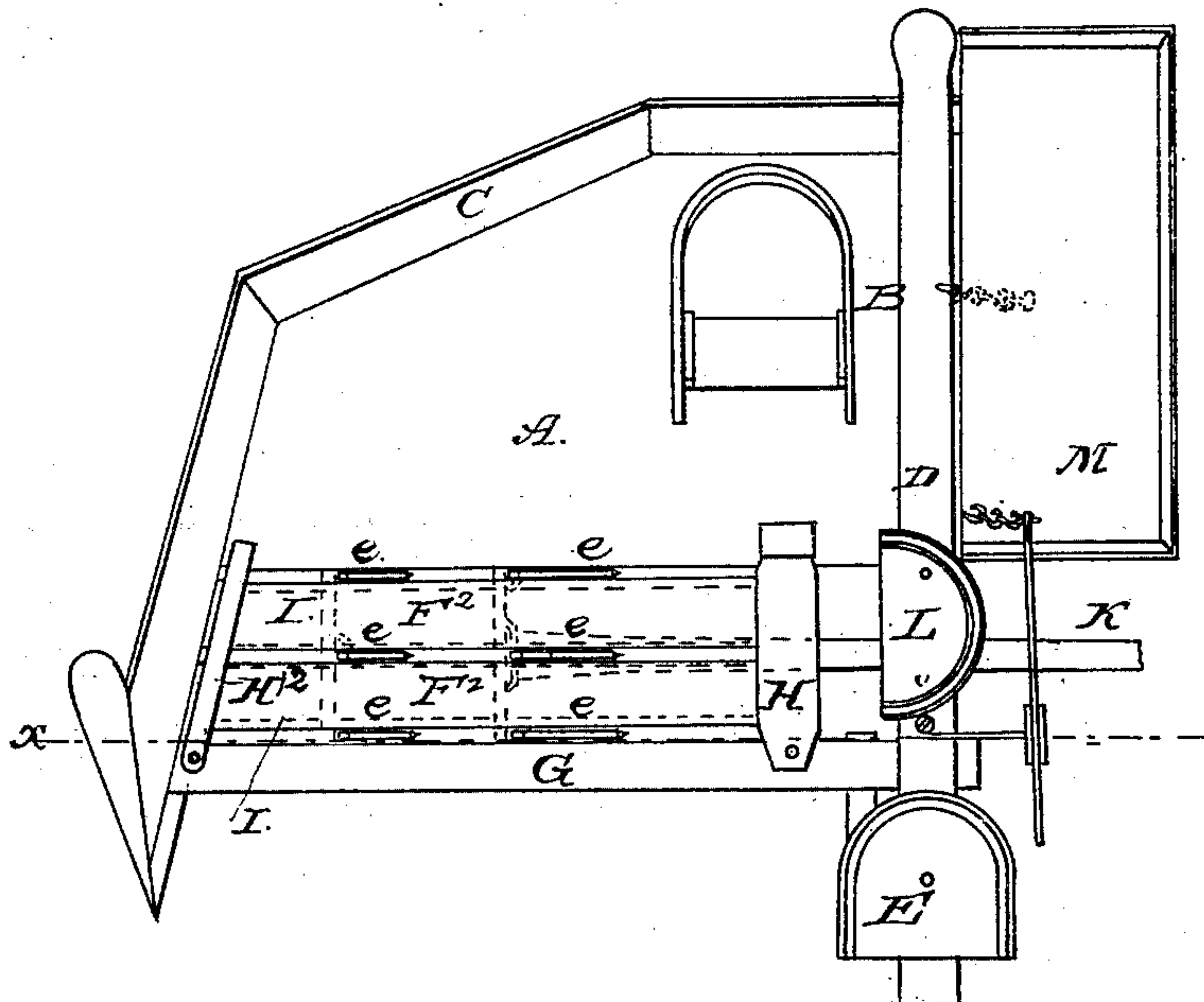


Fig. 2.

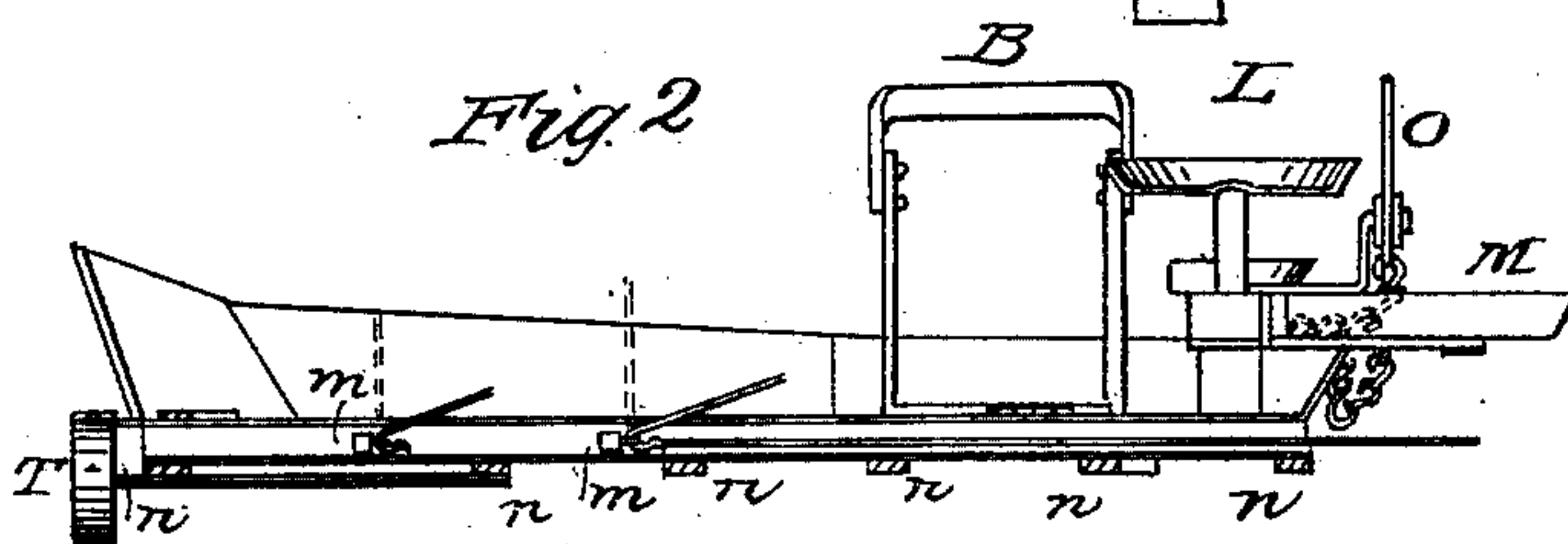
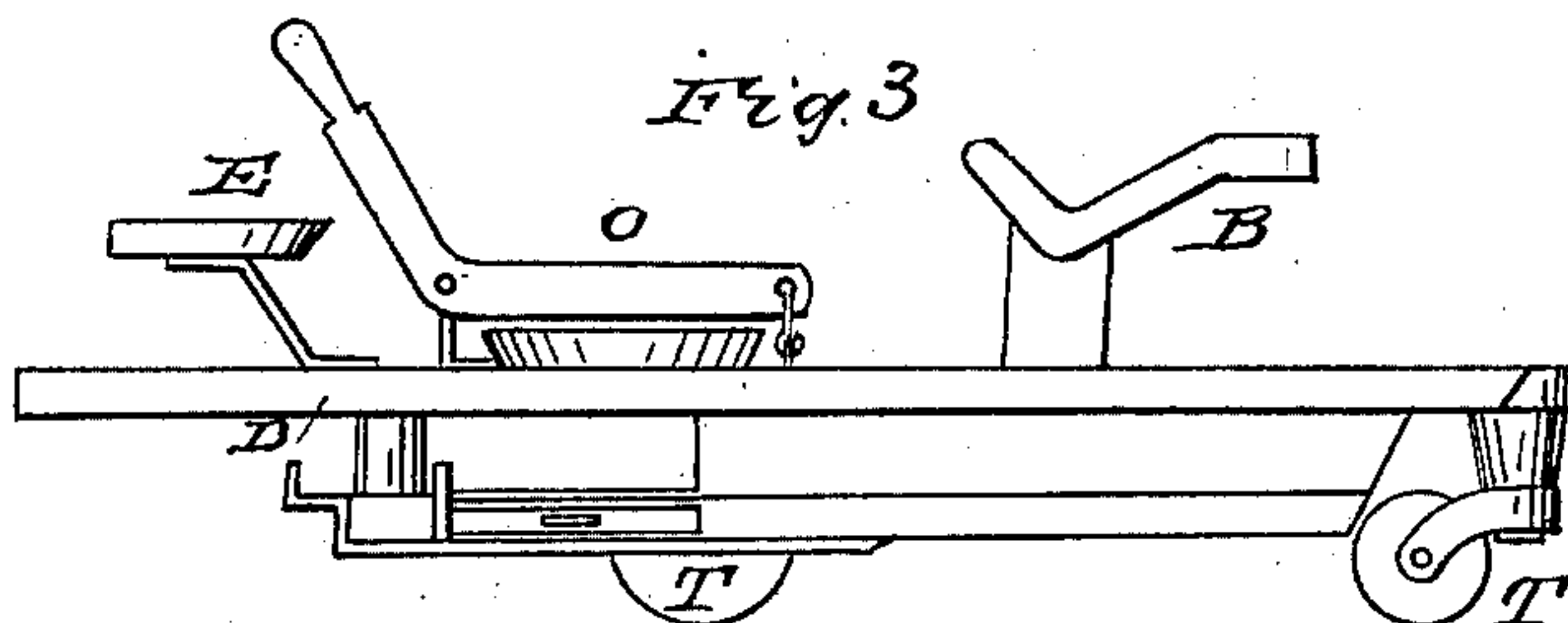


Fig. 3.



Witnesses  
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# UNITED STATES PATENT OFFICE.

WM. B. BIRDSALL AND EDWIN H. COGSWELL, OF HUDSON, MICHIGAN.

## IMPROVEMENT IN HARVESTING-MACHINES.

Specification forming part of Letters Patent No. 44,847, dated November 1, 1864.

*To all whom it may concern:*

Be it known that we, WM. B. BIRDSALL and EDWIN H. COGSWELL, of Hudson, Lenawee county, in the State of Michigan, have invented certain new and useful Improvements in Machines for Raking and Binding Small Grain; and we hereby declare that the following is a true and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 in the annexed drawings represents a plan view of our machine. Fig. 2 is a vertical section of the same in the line *x x*. Fig. 3 represents an end elevation.

The nature of our invention consists in the construction of an attachment to a reaper, intended to facilitate the raking and binding the grain as fast as it is cut.

The letter A in Fig. 1 represents a platform, of sheet metal, upon which the stand B is placed. The platform A has extending along its back and one of its sides the rim C, which is designed to prevent the grain and straw from escaping from the platform. From the rear, and above the left edge of the platform A, is the bar D, which extends sufficiently far beyond the front of the platform to afford a support of the driver's seat E.

F' and F<sup>2</sup> represent two metal plates running the whole width of platform A and flush with the surface of A. The plates F' and F<sup>2</sup> rest upon metal sleepers *n*, which are fastened at their inner end to the wooden sleepers which support the platform A. The metal F' next to the platform A is removed from A a quarter of an inch, more or less, and plate F<sup>2</sup> is removed the same distance from F'. Immediately in front of F<sup>2</sup> is placed the wooden bar G, which runs parallel with F<sup>2</sup>, being removed a quarter of an inch from it, affording at its end a support for bar D.

H represents two metal ties passing over F' and F<sup>2</sup>, and connecting platform A and bar G together. Underneath the plates F' and F<sup>2</sup> are three narrow strips of metal, I, (shown in dotted lines, Fig. 1,) and extending the length of F' and F<sup>2</sup>. The strips I are fastened to sleepers *n*, leaving space between *n* and plates F' and F<sup>2</sup> for the play of the metal rake-heads *m*. (See dotted lines, Fig. 1.) The rake-heads are connected by two ties, and have the same

motion. The rake-heads *m* may be of any desired number, each one being supplied with a series of teeth, *e*, which are hinged to it. The rake-heads *m* are put in motion by the metal bar K, which can be operated by a crank or any other common device. The teeth *e* are by the action of K made to move backward and forward in the openings, above described between F' and F<sup>2</sup> and between F' and platform A, as also between F<sup>2</sup> and bar G. When the rake-heads *m* are pushed backward the teeth *e* will be held nearly in a horizontal position by the weight of the straw; but when drawn forward the points of the teeth *e* will be caught in the straw and raised to a vertical line and brought immediately in front of the operator, who is seated on L, by whom it is transferred to the stand B.

M represents an adjustable platform or dumper, hinged to the outer ends of the two supports *s*, which are fastened to the bottom of bar D, and at right angles with it. The dumper M has a rim on its outer edge and on its two ends to prevent the escape of the grain, and is operated by the lever O by means of a chain, which is fastened to the lever and passes through the dumper.

T represents the two wheels that support the rear of the frame A.

Our machine is to be attached to any of the reapers in common use, and is operated as follows: As fast as the grain is cut it is brought within reach of the operator seated on L. By him it is bound and thrown into the dumper M. When a sufficient number of bundles have been thus collected the operator, with his left hand, presses down the short arm of lever O, which raises the inner edge of the dumper high enough to discharge its contents.

Having thus described our machine, what we claim, and desire to secure by Letters Patent, is—

The arrangement of the rake-heads *m*, constructed and operating as described, in relation to the stand B and the dumper M, substantially as and for the purpose herein set forth.

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