

(No Model.)

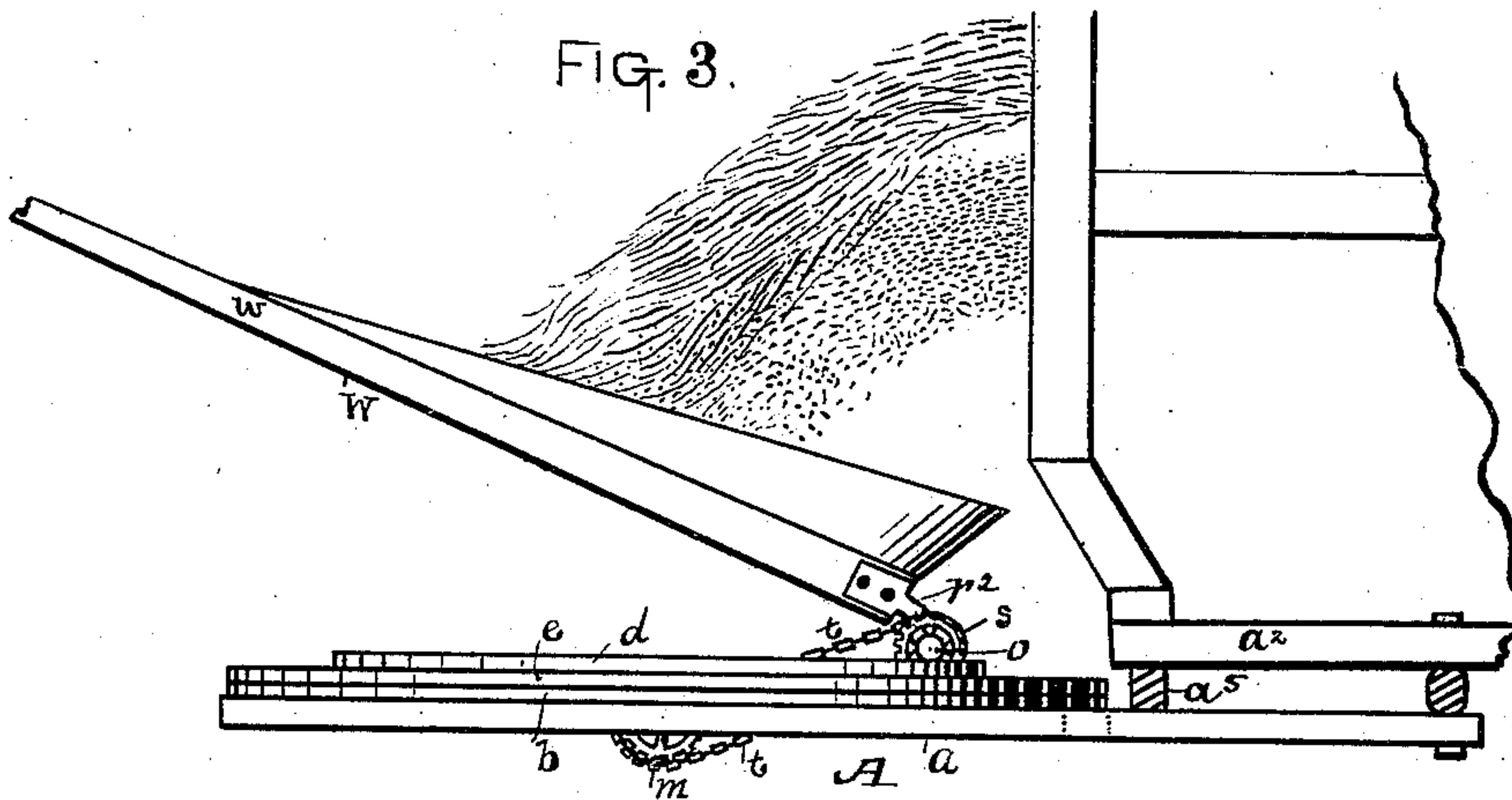
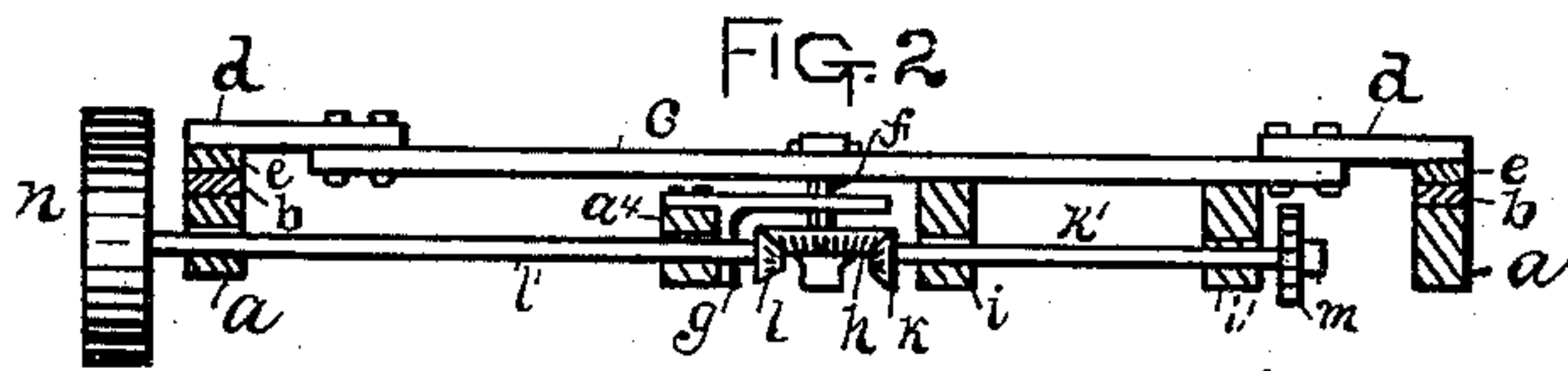
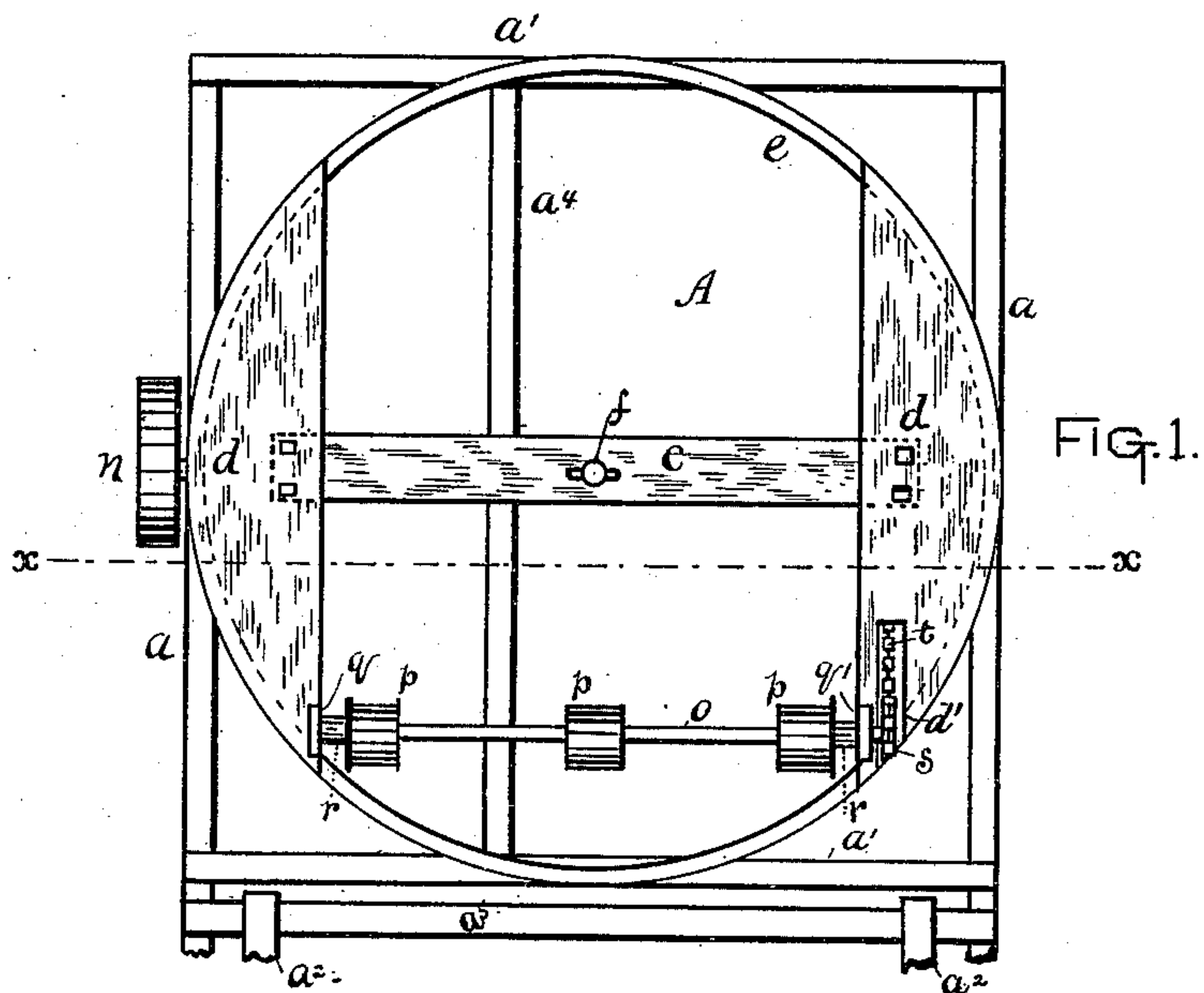
2 Sheets—Sheet 1.

D. BINNS.

STRAW ELEVATOR FOR THRASHING MACHINES.

No. 358,251.

Patented Feb. 22, 1887.



Witnesses

Harry M. Taylor
A. A. Caylor

Inventor.

David Binns

By his Attorney

C.C. Shepherd

(No Model.)

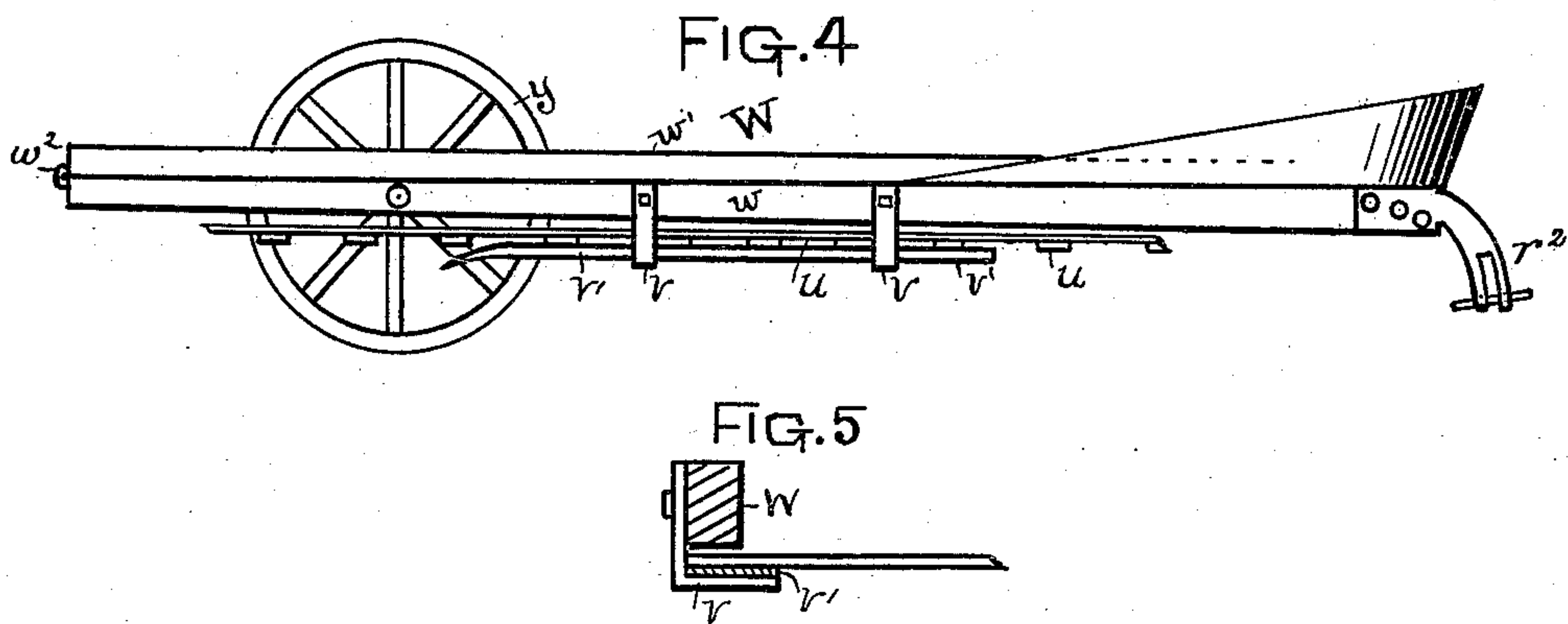
2 Sheets—Sheet 2.

D. BINNS.

STRAW ELEVATOR FOR THRASHING MACHINES.

No. 358,251.

Patented Feb. 22, 1887.



Witnesses
C. W. Adams.
A. H. Gaylon

Inventor
David Binns
By his Attorney
C. C. Shepherd

UNITED STATES PATENT OFFICE.

DAVID BINNS, OF CAMP CHASE, OHIO.

STRAW-ELEVATOR FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 358,251, dated February 22, 1887.

Application filed April 3, 1886. Serial No. 197,736. (No model.)

To all whom it may concern:

Be it known that I, DAVID BINNS, a citizen of the United States, residing at Camp Chase, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Straw-Elevators for Thrashing-Machines, of which the following is a specification.

In the accompanying drawings, Figure 1 is a plan view of my improved elevator-swinging device. Fig. 2 is a transverse section taken on line $x x$ of Fig. 1. Fig. 3 is a side elevation of the swinging device. Fig. 4 is a side elevation of the straw-elevator; and Fig. 5 is a detail view, partly in section, of the webbing-keepers.

Similar letters refer to similar parts throughout the several views.

A represents the frame-work on which the swinging device rests, consisting of the side pieces, $a a$, cross-pieces $a' a'$ and a^5 , the latter being secured to the under sides of the outer ends of the sills a^2 of the thrashing-machine, and the bar a^4 , connecting the cross-pieces $a' a'$ near their middle portions. Fixed on this frame-work so that its rear portion projects slightly beneath the thrashing-machine is the usual metal ring or circular track, b , on which rests a similar track, e .

Secured to the upper side of the upper track, e , in a position, as shown, parallel with the long axis of the thrashing-machine, are boards $d d$, each of which is made to cover a small segment of the circle formed by the metal tracks e and b . These boards $d d$ are curved on their outer side to conform to the outer curve of the tracks. Extending across the center of the circle is a board, c , having its ends secured to the under side of the boards $d d$, near their inner edges.

Extending vertically downward through the board c , at the center of its length, is a shaft, f , which, passing through a bearing-arm, g , projecting from the cross-bar a^4 , carries on its lower end a beveled cog-wheel, h , which engages the pinion-wheels k and l , fixed, respectively, on the ends of shafts $k' l'$, the shaft k' having bearing-pieces $i i'$ secured to the bottom of the board c . This shaft k' carries at a point beneath the board c and board d a sprocket-wheel, m . The shaft l' passes through

and has its bearings in the cross-bar a^4 and side piece, a , and carries on its outer end a belt-wheel, n , to which power is communicated, in the usual manner, from the thrashing-machine.

Located in front of the board c , in a line parallel with the shafts $k' l'$, is the raddle-shaft o , having the usual band-wheels, p , and having its ends supported in bearings $q q'$ on the boards d , near their outer ends and inner edges, and carrying on one of its extremities a sprocket-wheel, s , the lower portion of which extends beneath the board d through a slot, d' , therein. The bearings $q q'$, within which the raddle-shaft rests, are provided with cylindrical bosses r , over which are hooked the curved heel-hooks r^2 of the elevator, by which means it is hinged to the movable circular track. An endless chain belt, t , is made to connect the sprocket-wheels s and m . Motion being communicated to the belt-wheel n , it is transmitted, through the shaft l' and pinion l , to the beveled cog-wheel h , and thence, through the pinion k and shaft k' , to the sprocket-wheel m , which, through its chain belt t , communicates motion to the sprocket-wheel s , the raddle-shaft o , and its band-wheels p , the latter operating the straw-elevator in the usual manner. By pressure against the side of the elevator-frame the upper metal track, e , carrying the boards $d d$ and c , is made to slide on the lower track, b , and the pinion k made to assume a different position on the beveled wheel h . Thus the elevator may be readily swung to the desired position.

In order to prevent the webbing or straw-carrier u from sagging, there are, as usual, metal keepers v , consisting of strips of metal bolted or otherwise secured to the outer sides of the elevator-frames at desirable points, and having their lower ends bent inward to receive plates v' , which are secured thereto.

The carrier-frame W is made in two parts, $w w'$, having a hinge-connection, w^2 . For convenience in transportation, I pivot to each side of the carrier-frame W a light wheel, y , which, when the part w' has been folded onto the part w , is adapted to rest on the ground, and the elevator may then be moved forward without necessitating its disconnection from the machine.

I am aware that the operating mechanism located beneath the board *c* is old, and that a raddle-shaft has been used in connection therewith. I therefore do not claim these, broadly.

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

1. In a straw-elevator for thrashing-machines, the combination of the frame *A*, a circular track, *b*, secured upon said frame, the
10 circular track *c*, segmental boards *d*, secured to the latter, the board *e*, passing across the center of the tracks and having its ends secured to the segmental boards, bearing-pieces
15 *i i'*, secured to the bottom of the board *c*, a shaft, *k'*, supported therein and provided with a sprocket-wheel, the raddle-shaft located in front of the board *c* and having sprocket-wheel

s thereon, and a belt connecting said sprocket-wheels, substantially as and for the purpose described. 20

2. The combination of a thrashing-machine frame, the frame *A*, the stationary and movable circular tracks resting thereon, with the carrier-frame *W*, hinged upon the latter and constructed in sections, hinged together so that
25 the upper section folds back upon the lower, and wheels *y*, pivoted near the outer end of the lower section, substantially as and for the purpose described.

DAVID BINNS.

In presence of—

A. A. CAYLOR,
FRANK RATHWELL.