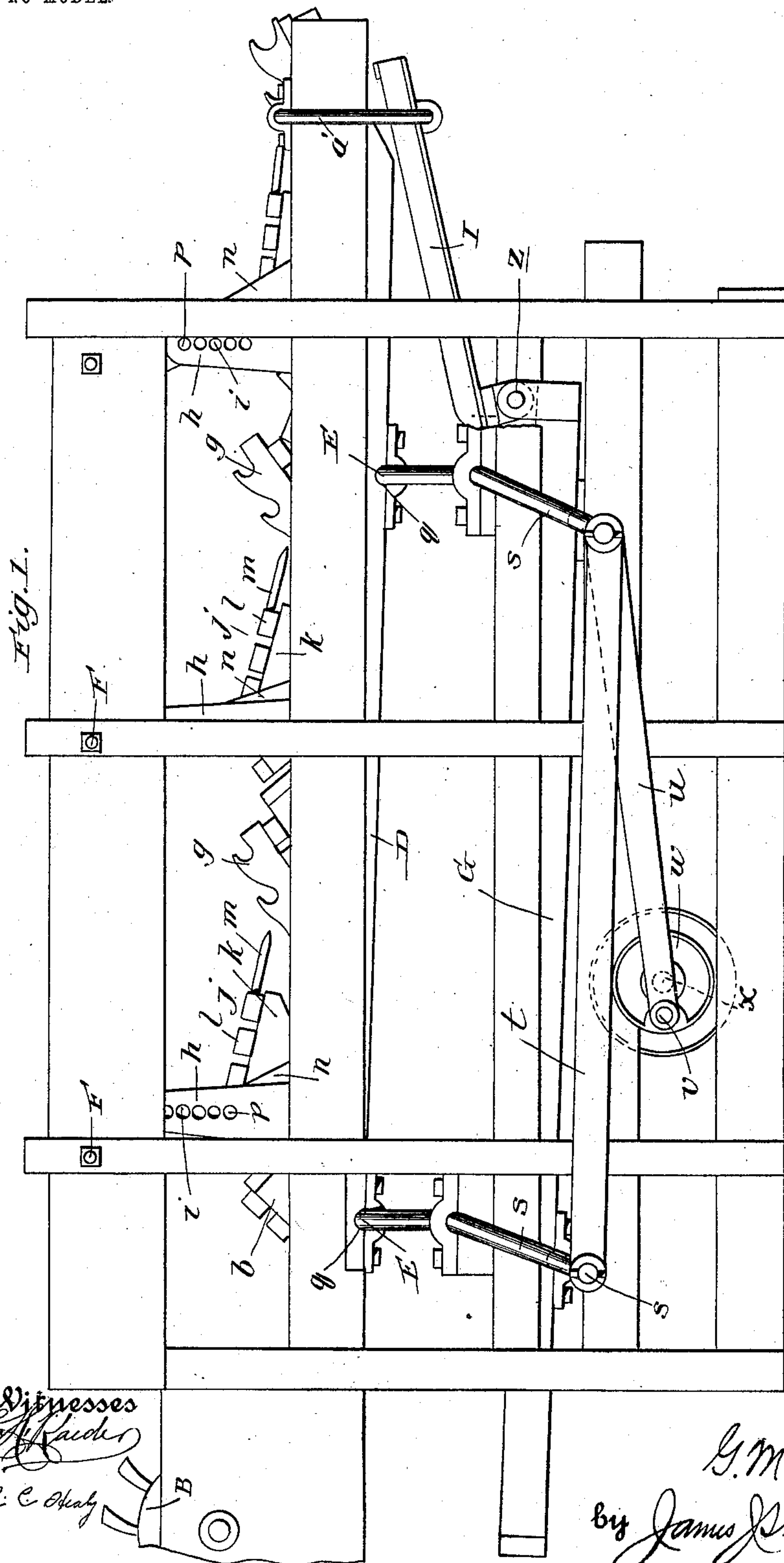


G. M. ABSALOM.
THRESHING MACHINE.
APPLICATION FILED MAY 2, 1903.

NO MODEL.

4 SHEETS—SHEET 1.



Witnesses
[Signature]
N. C. O'Leary

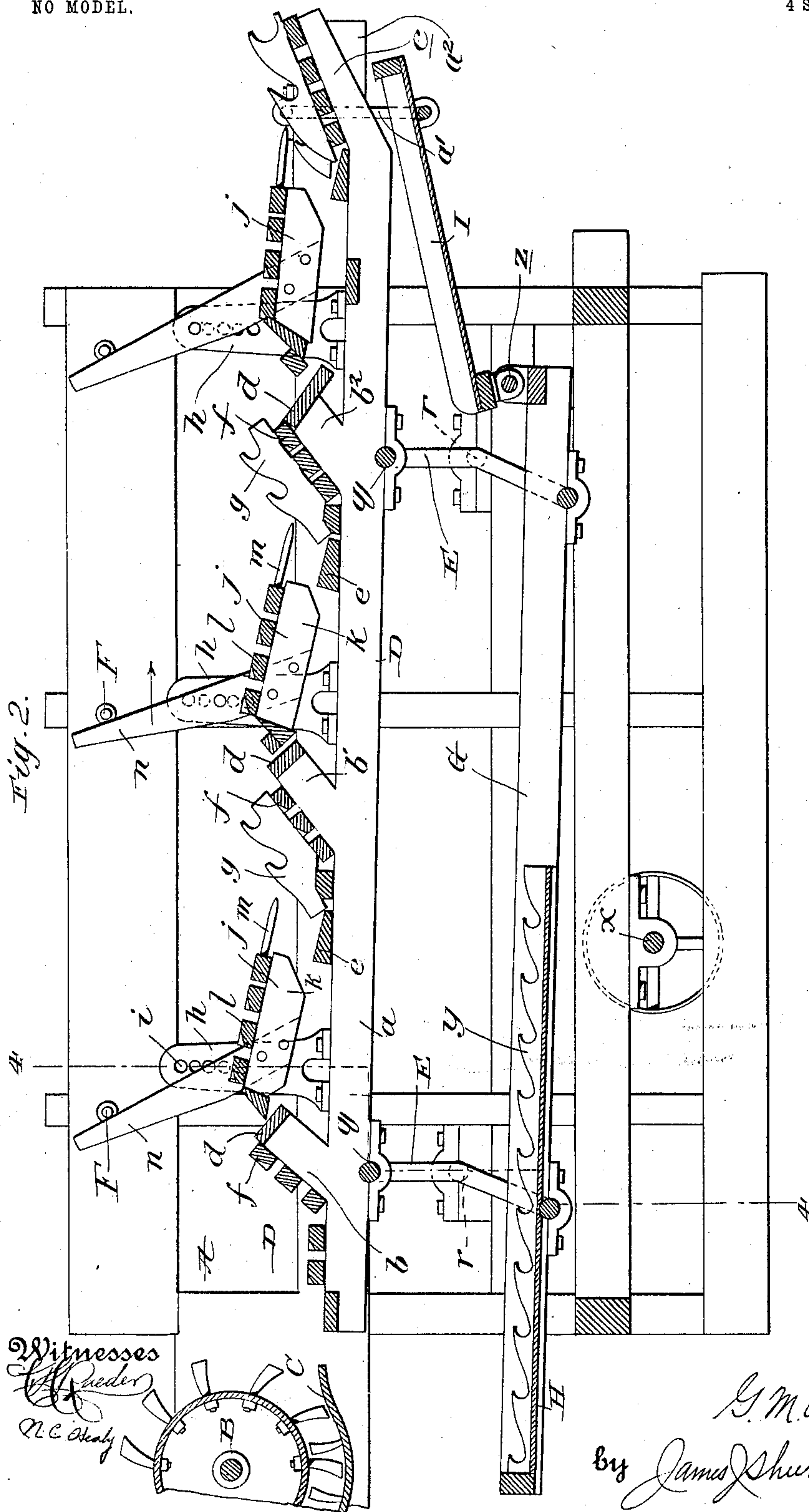
Inventor
G. M. Absalom.
by *[Signature]* Attorney

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4 SHEETS—SHEET 2.



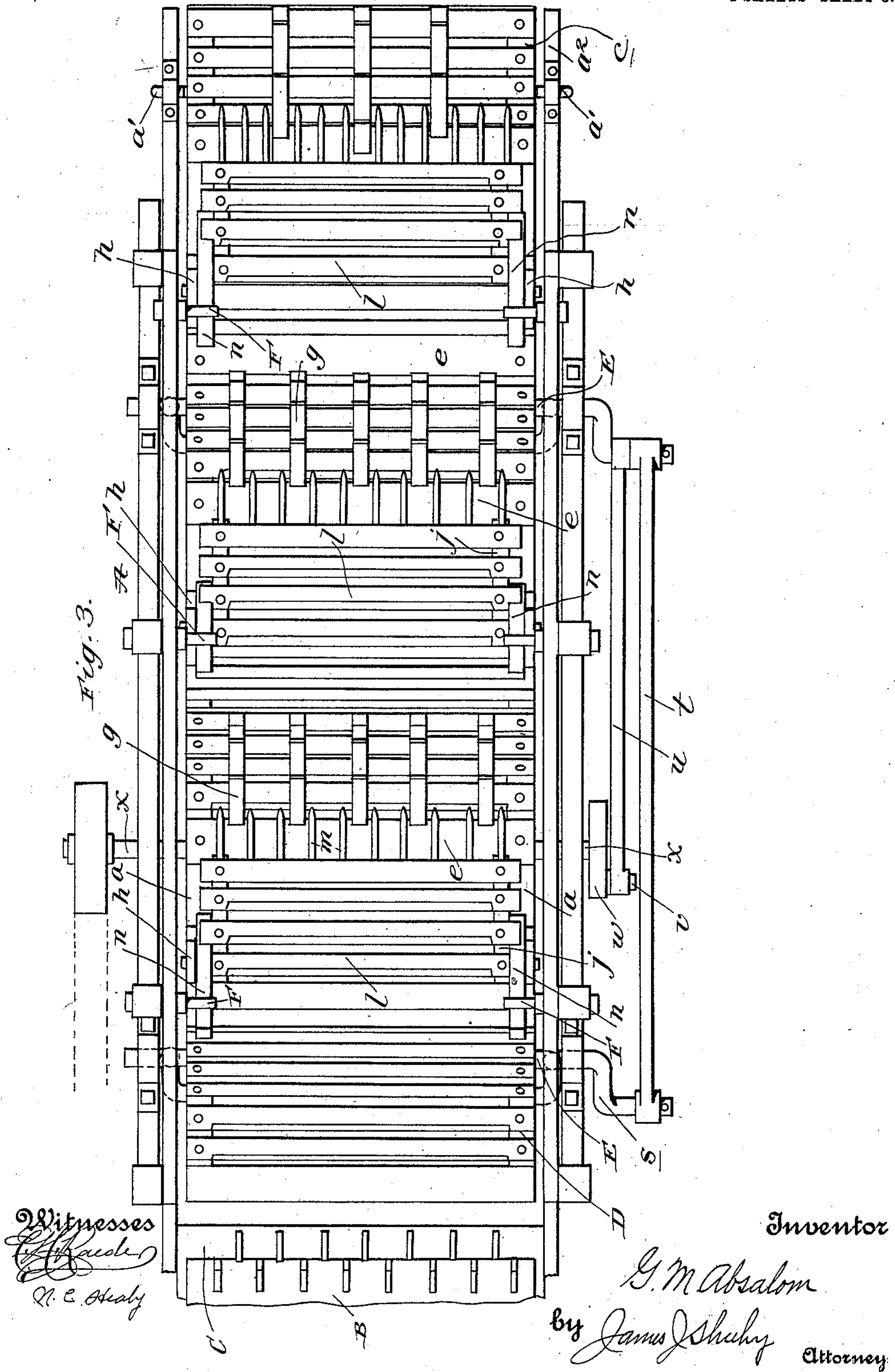
No. 746,431.

PATENTED DEC. 8, 1903.

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4 SHEETS—SHEET 3.



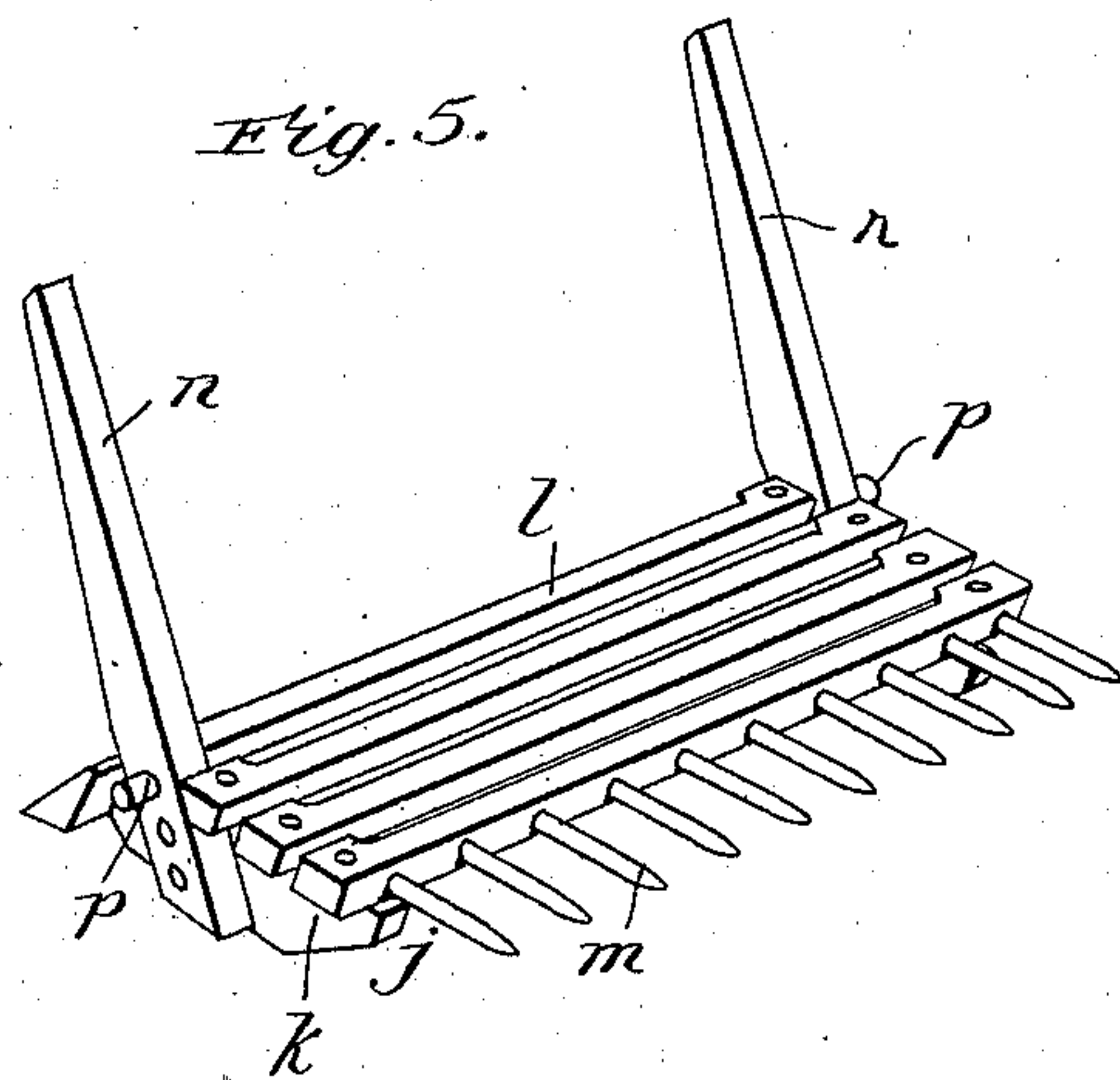
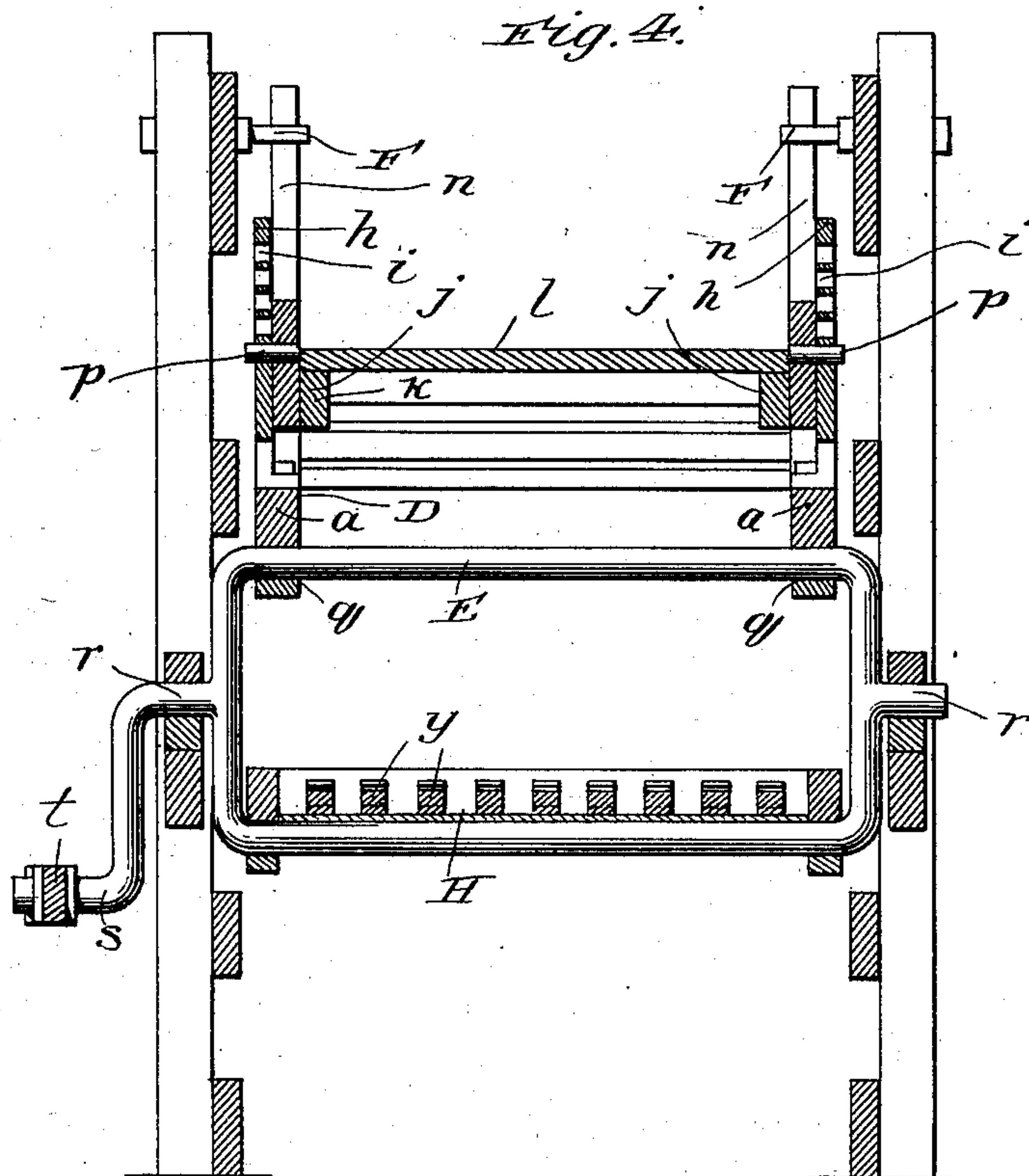
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NO MODEL.

4 SHEETS—SHEET 4.



Witnesses
[Signature]
N. C. Stahly

Inventor
G. M. Absalom.
By *[Signature]* Attorney

UNITED STATES PATENT OFFICE.

GEORGE M. ABSALOM, OF BIRTLE, CANADA.

THRESHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 746,431, dated December 8, 1903.

Application filed May 2, 1903. Serial No. 155,388. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. ABSALOM, a citizen of Canada, residing at Birtle, in the Province of Manitoba and Dominion of Canada, have invented new and useful Improvements in Threshing-Machines, of which the following is a specification.

My invention relates to threshing-machines, and more particularly to the straw-racks thereof; and it has for its object to provide a straw-rack embodying such a construction that it is highly efficient in expeditiously feeding straw to the rear and out of a threshing-machine and opening and keeping the straw in a state of agitation incident to such feeding with a view of assuring the thorough separation of grain-kernels and unthreshed heads from the straw.

Other advantageous features of the invention will be fully understood from the following description and claims when taken in connection with the accompanying drawings, in which—

Figure 1 is a side elevation of so much of a threshing-machine as is necessary to illustrate the preferred embodiment of my invention; Fig. 2, a vertical longitudinal section of the same; Fig. 3, a top plan view; Fig. 4, a transverse section taken on the broken line 4-4 of Fig. 2, and Fig. 5 a perspective view of one of the straw raisers and agitators of the rack removed therefrom.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which—

A is a threshing-machine frame, which may be of the ordinary or any other approved construction; B, a toothed cylinder at the front end of the frame; C, a toothed concave arranged adjacent to and adapted to operate in conjunction with the cylinder in the usual manner, and D my improved straw-rack.

In the present and preferred embodiment of my invention the straw-rack comprises a rectangular frame *a*, arranged between the sides of the main frame and having upwardly and rearwardly inclined arms *b b' b²* on its side bars at intervals in the length thereof and also having the rear ends of said side bars inclined upwardly and rearwardly, as indicated by *c*, Fig. 2; transverse bars *d*, arranged on and connected to the ends of the arms *b b' b²* and disposed at approximate

right angles to the front edges of said arms; transverse bars *e*, arranged on and connected to the side bars of the frame *a* in front of the arms *b' b²* and the inclined ends *c* and having their upper sides slightly inclined in a reverse direction to said arms and ends; inclined series of transverse slats *f*, arranged on and connected to the upper edges of the arms *b b' b²* and ends *c*; inclined bars *g*, arranged on and connected to the slats *f* on arms *b' b²* and ends *c* and having their upper edges toothed, whereby they are adapted to accelerate the passage of the straw to the rear; standards *h*, preferably of steel, connected to and rising from the side bars of frame *a* in front of the cross-bars *e* and having apertures *i*, and straw raisers and agitators *j*, carried by the standards *h*. Each of the said raisers and agitators in turn comprises a body made up of end bars *k*, Fig. 5; cross-slats *l*, connected to said end bars; rearwardly-extending fingers *m*, connected to the rear slat *l*, and arms *n*, connected to and extending upwardly from the end bars *k* of the body. The raisers and agitators are pivotally connected to the standards *h* by pins *p*, arranged in apertures *i* of the standards, and a plurality of apertures is provided in each standard *h*, as before stated, and the pins *p* are made removable in order that the raisers and agitators may be mounted at a greater or less distance above the frame *a* of the rack, as desired by the operator of the machine.

E E are transverse swinging supports arranged below and pivotally connected at *q* to the frame *a* of the straw-rack and having trunnions *r*, journaled in bearings on the sides of the main frame A, and also having cranks *s*. These swinging supports are preferably open rectangular frames of steel, their upper cross-bars being connected to the frame *a* of the rack D and their lower cross-bars being designed for a purpose presently set forth. The cranks *s* of the two supports E are connected together by a bar *t*, Fig. 1, and one crank is connected by a pitman *u* with a wrist-pin *v* on a crank-wheel *w*, carried by a shaft *x*, designed to be driven from any suitable source of power.

When the shaft *x* is rotated, the supports E will be oscillated forwardly and rearwardly and the rack D moved longitudinally to and fro and raised and lowered.

F F are abutments, preferably pins, connected to the sides of the main frame A and arranged in the path of and adapted to engage the arms *n* of the straw raisers and agitators *h* incident to the rearward movements of the rack D.

The practical operation of the parts of my improved machine thus far described is as follows: The cylinder B and shaft *x* are rotated through suitable driving connections, (not shown,) and grain to be threshed is fed to the cylinder and its complementary concave. After passing between the cylinder and concave the grain is discharged on the front end of the rack D, when by reason of the inclined portions and the raisers and agitators of the rack the straw will be quickly fed to the rear and incident to such passage will be repeatedly thrown upwardly and loosened or opened. The raisers and agitators are raised once incident to each rearward movement of the rack by their arms *n*, engaging the pins F, and they obviously contribute materially to the thorough opening and agitation of the straw and assure the separation of all grain-kernels and unthreshed heads from the straw before the latter passes out of the machine. The grain-kernels and unthreshed heads drop through the openings in the rack D; but the straw is effectually prevented from following such course, this latter because the fingers *m* of the raisers and agitators overhang the cross-bars *e*, and the front edges of the bodies of the raisers and agitators rest and move close to the cross-bars *d* on the inclined arms *b b' b''*, as best shown in Fig. 2.

G is a rectangular frame mounted on the lower cross-bars of the swinging supports E; H, a grain-conveyer carried by said frame below the forward portion of the rack D and having longitudinal toothed bars *v* on its bottom which extend from its forward closed end to its rear open end, and I a grain-pan pivotally connected at *z* to the frame G and extending upwardly and rearwardly therefrom and connected by a swinging bail *a'* with rear extensions *a''* of the frame sides.

When the rack D is moved rearwardly by the oscillation of the swinging supports E, the frame G and the conveyer H and pan I thereon will be moved forwardly, and vice versa, with the result that grain received in the conveyer H and pan I will be quickly worked along and out of the same.

I have entered into a detailed description of the construction and relative arrangement of the parts embraced in the present and preferred embodiment of my invention in order to impart a full, clear, and exact understanding of the same. I do not desire, however, to be understood as confining myself to such specific construction and relative arrangement of parts, as such changes or modifications may be made in practice as fairly fall within the scope of my invention as claimed.

Having described my invention, what I

claim, and desire to secure by Letters Patent, is—

1. In a threshing-machine, the combination of a main frame, supports mounted to swing in the frame, in the direction of the length thereof, and having upper and lower cross-bars, a straw-rack comprising a frame, carried by the upper cross-bars of the supports, upwardly and rearwardly inclined portions on the said frame, at intervals in the length thereof, and straw raisers and agitators pivotally mounted on the frame, intermediate of the upwardly and rearwardly inclined portions; the said raisers and agitators each being pivotally mounted at such a point as to enable it to normally rest in an inclined position opposite to that of the inclined portion in front of it, means for rocking the raisers and agitators of the rack, a frame carried by the lower cross-bars of the supports, a grain-conveyer carried by said frame, and having longitudinally-disposed, toothed bars on its bottom, a grain-pan pivoted at one end on said frame, and arranged to receive from the rear end of the straw-rack, and a connection between the opposite end of said grain-pan and the main frame.

2. In a threshing-machine, the combination of a main frame, lateral pins extending inwardly from one side thereof, and a straw-rack connected with and movable in the main frame, and comprising a frame having upwardly and rearwardly inclined arms on its side bars, cross-bars *d* connecting the ends of said arms, slats arranged on the upper edges of the arms, longitudinal bars *g* arranged on said slats, and having toothed upper edges, cross-bars *e* arranged in front of the inclined arms, standards rising from the side bars of the frame, and straw raisers and agitators, pivotally mounted in said standards and comprising bodies, normally bearing on the bars *e*, and arms extending upwardly from the bodies, and adapted to engage the pins on the side of the main frame when the rack is moved in one direction.

3. In a threshing-machine, the combination of a main frame, supports mounted to swing in the frame, in the direction of the length thereof, and having upper and lower cross-bars, a straw-rack carried by the upper cross-bars of the supports, a frame carried by the lower cross-bars thereof, a grain-conveyer carried by said frame, and having longitudinal, toothed bars on its bottom, a grain-pan pivoted at one end on said frame and arranged to receive from the rear end of the straw-rack, and a swinging bail interposed between and connecting the opposite end of said grain-pan and the main frame.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE M. ABSALOM.

Witnesses:

PERCY C. W. RAYMER,
JAMES MACDONALD.