(No Model.) 2 Sheets—Sheet 1.

M. ALEXANDRESCU.

REAPING MACHINE.

No. 588,850. Patented Aug. 24, 1897.

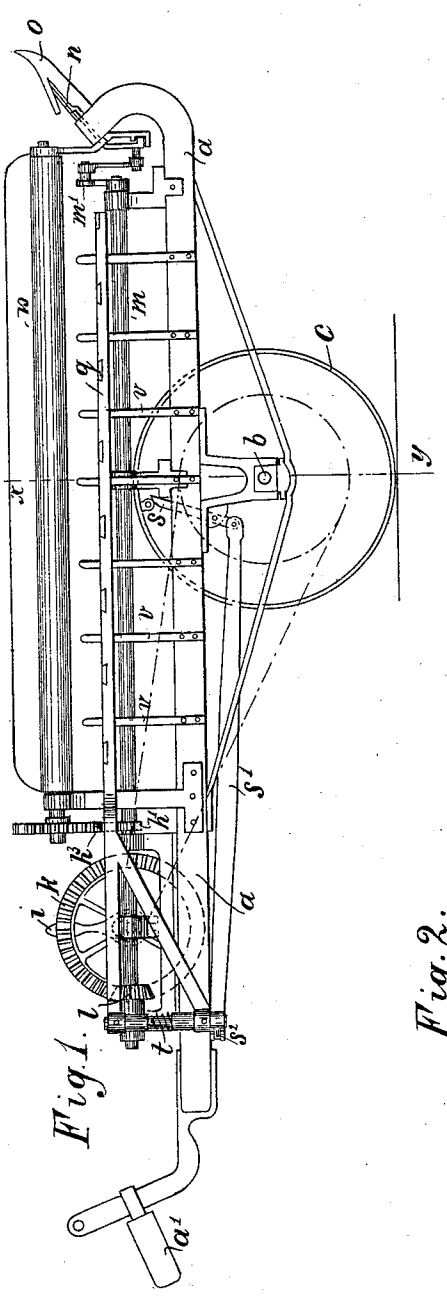


Fig. 1.

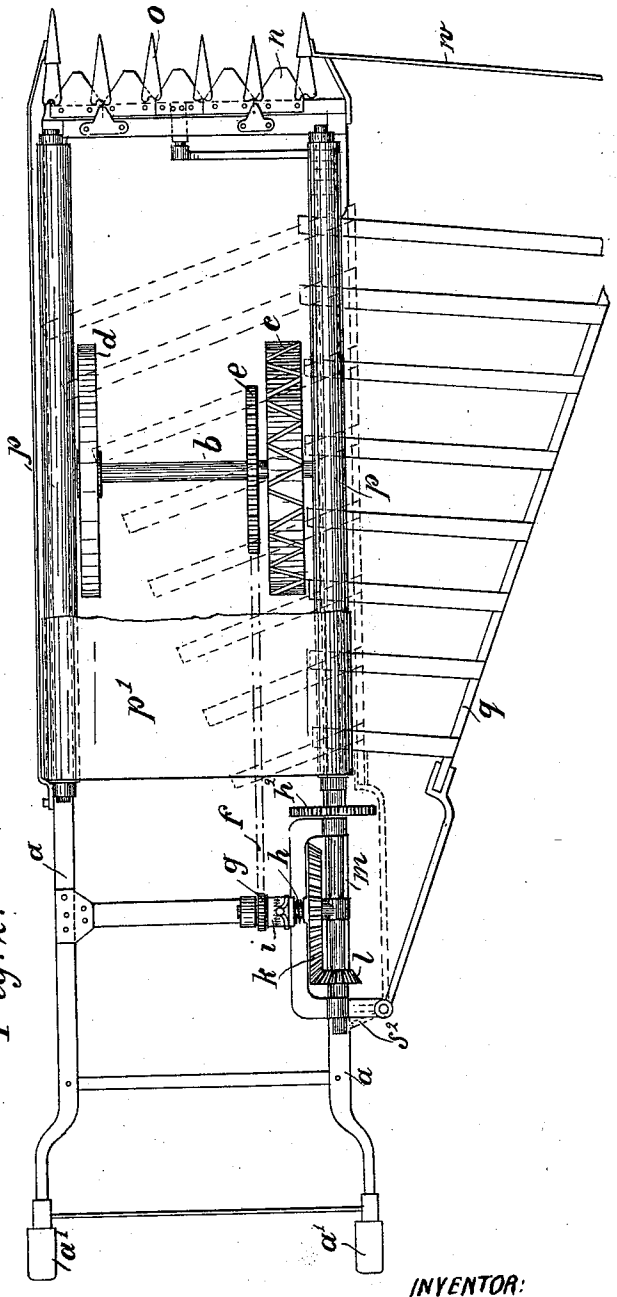


Fig. 2.

WITNESSES.

F. W. Hanaford

A. H. Davis

INVENTOR:

M. Alexandrescu.

BY

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

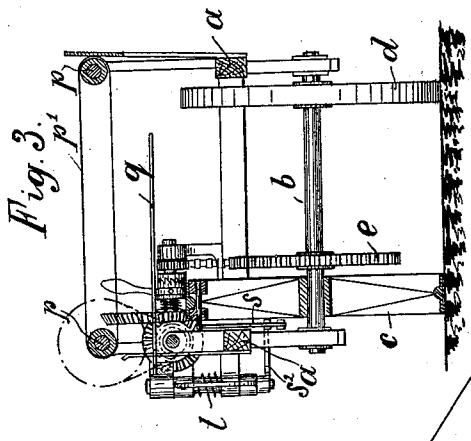


Fig. 4.

WITNESSES.

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

MIHAIL ALEXANDRESCU, OF BUCHAREST, ROUMANIA.

REAPING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 588,850, dated August 24, 1897.

Application filed June 17, 1896. Serial No. 595,844. (No model.)

To all whom it may concern:

Be it known that I, MIHAIL ALEXANDRESCU, a subject of the King of Roumania, residing at Bucharest, in the Kingdom of Roumania, have invented new and useful Improvements in Reaping-Machines, of which the following is a specification.

My invention relates to an improved construction of reaping-machines (in particular for cereals) which, instead of being propelled by draft-animals, as heretofore, are propelled by hand.

I will describe the construction of the said machine with reference to the accompanying drawings, in which—

Figure 1 shows a side view; Fig. 2, a plan; Fig. 3, a cross-section on line *x y*, Fig. 1; Fig. 4, a diagrammatic view of the machine in the operating position.

As shown on the drawings, the machine consists of a framing *a* of oblong rectangular form, which rests on the wheel-axle *b*. This axle *b* is carried by two road-wheels *c* and *d*, of which the first, which is fixed on the axle *b*, is formed with oblique ribs on the periphery in order, on the propulsion of the machine, to prevent any slipping of the wheel on the ground.

The axle *b* carries a chain-wheel *e*, which may be fixed either to the wheel *c* or to the axle *b*, and consequently revolves with these. The motion of this chain-wheel *e* is transmitted through a pitch-chain *f* to a second chain-wheel *g*, loose on the shaft *h*, but connected thereto by a clutch *i*. This shaft carries a bevel-wheel *k*, gearing with a bevel-pinion *l*, fixed on a shaft *m*, which at its front end has a crank *m'*. By means of this crank the knife-bar *n* at the front end of the machine has a reciprocating motion imparted to it. The knife-bar is of known construction. It carries three-sided blades, which slide to and fro in the slots of the finger-bar *o*, and thus cut the stalks of the cereals, &c., entering between the fingers.

Above the framing are two parallel rollers *p p*, mounted in bearings on uprights, of which rollers one is driven from the shaft *m* by means of chain-wheels h' h^2 and pitch-chain h^3. Over these rollers is stretched an endless cloth *p'*, which, on the rotation of the said roller, is made to travel across the machine. On that side of the machine at which the shaft *m* is mounted parallel to the longitudinal beam *a* of the framing is provided a rack *q*, which can turn with a vertical axis mounted in bearings at the rear end of the machine and whose prongs on the turning of the rack pass below the cloth *p'*, traveling over the rollers *p p*. This rack receives its motion from the road-wheel *c*, a tappet on the inner side of the wheel-rim being made to act on the levers *s*, *s'*, and s^2, and thus to impart the above-described motion to the rack. As shown on the drawings, the rack *q* receives an inward motion at each rotation of the wheel *c*.

On the axis of the rack is mounted a helical spring *t*, which effects the turning outward of the rack after each inward motion. The inward position of the rack is shown in dotted lines at Fig. 2.

The machine operates as follows: The operator, seizing the handles *a'* at the rear end of the machine, raises this end until the knife and finger bars in front are situated a certain short distance from the soil, as indicated at Fig. 4. On then pushing the machine forward the knife-bar receives its reciprocating motion by means of the crank-shaft *m*, as above described, thereby cutting the stalks of the cereals which fall onto the cloth *p'*. In consequence of the lateral motion hereof the corn is delivered on the rack and accumulates there until the inward motion of the rack produced by the road-wheel *c* causes the corn to be pushed off the rack in such quantities as to correspond to sheaves, which are then bound by hand.

In order that during the inward motion of the rack the cut stalks may not be carried under the rollers *p p*, there are provided on the longitudinal beam *a* of the framing bars *v*, which on the inward motion of the rack stop the corn and push it off the rack.

In front of the rack in the direction of the knife-bar is provided a guard-plate *w* for the purpose of preventing the cut corn from sliding downward from the rack.

I have described the machine as particularly adapted for operation manually, but it is to be understood that it may be arranged for the attachment of draft-animals without departing from the spirit of my invention.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. A reaper or harvester, comprising a frame, two wheels upon which the frame is mounted, a cutter on the forward end of the frame, a shaft extended along one side of the frame, means for rotating said shaft, a connection between the shaft and cutter whereby the cutter is operated, an endless apron movable transversely over the frame, a rack mounted to swing on the frame below the plane of the apron, the said rack being normally at one side of the apron, but movable underneath the same, the said rack being moved in one direction by one of the supporting-wheels, and a spring for moving the rack in the other direction, substantially as specified.

2. A reaper or harvester, comprising a carriage, a cutter on the forward end thereof, means for operating the cutter, an endless apron movable transversely over the carriage, a rack normally at one side of, but movable below the apron and actuated in one direction by one of the carriage-wheels, and a spring for moving the rack in the opposite direction, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MIHAIL ALEXANDRESCU.

Witnesses:

JOAN BARBOVESCU,

EDUARD PEITZ.