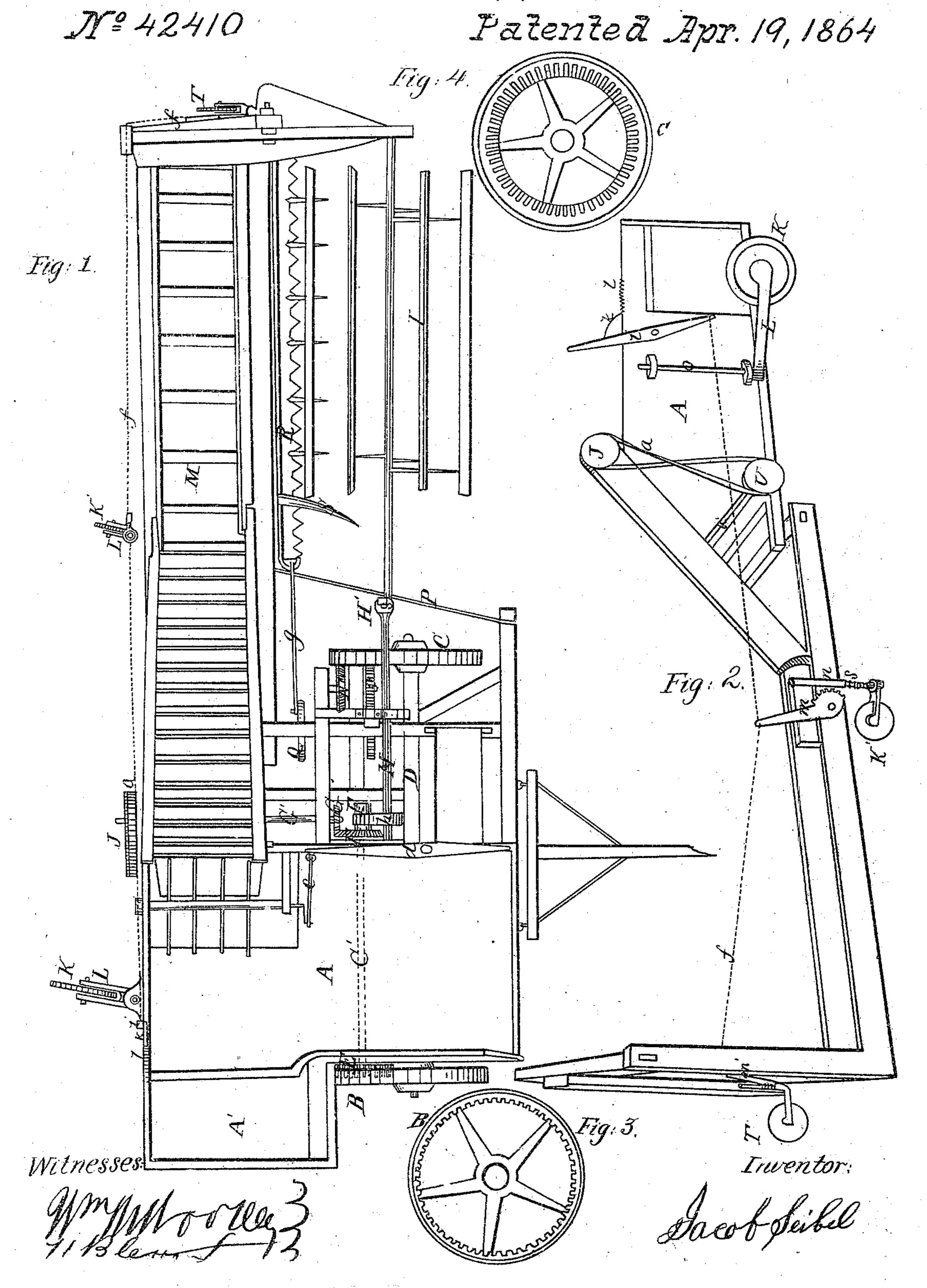
## J. Seibel.

Harvester Droppers.



## United States Patent Office.

JACOB SEIBEL, OF MANLIUS, ILLINOIS.

## IMPROVEMENT IN HARVESTING-MACHINES.

Specification forming part of Letters Patent No. 42,410, dated April 19, 1864.

To all whom it may concern:

Be it known that I, JACOB SEIBEL, of Manlius, in the county of Bureau and State of Illinois, have invented a new and useful Improvement in Reaping Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters and figures marked thereon, which form part of this specification.

In the said drawings, which are hereunto annexed, Figure 1 represents a plan or top view of my invention. Fig. 2 represents a perspective view thereof, showing the rear and one end of the same. Fig. 3 is a side view of the wheel B, and Fig. 4 a similar view of the wheel C.

Similar letters of reference in the different figures denote corresponding parts of my invention.

To enable others to understand how to construct and use my invention, I will proceed to describe the same with particularity.

A A' in the annexed drawings represent the box or receptacle in which the grain is deposited, which is supported and conveyed upon the wheels B and C, which revolve upon the extremities of the axle D, and the adjustable wheel K, which is attached to the pivoted beam or bar L. K and T represent two other wheels which support the frame or platform upon which the elevator M rests, and to which the sickle R is attached.

b represents a revolving rake, which collects and deposits the grain which is carried up the elevator M into the box A A' upon the table or bench beneath, upon which it is bound by the persons who stand near for that purpose.

c, which by means of the rod c moves and operates the rake b, the driver or some other person standing in the front of the box controlling said rake by means of said lever d.

The device by which the endless apron and elevator M is operated is as follows: The wheel B, as shown in Fig. 3, is provided with cogs which gear into corresponding cogs upon the wheel E, which is fixed immovably upon the shaft E'. At the opposite end of the said shaft E' is fixed in a similar manner the miter-wheel F, which gears into the miter-wheel G, which is fixed upon the shaft G', at the other extremity of which shaft last mentioned is fixed

the drum U directly beneath the drum J, which is fixed upon the roller around which the elevator M passes, said elevator also passing around another similar roller at the other side of the machine. As the wheel B revolves upon the axle D the shaft E' is revolved, and also the miter-wheel F upon said shaft. The said miter-wheel F, by means of its gearing with the miter-wheel G, revolves the shaft G' and the drum U thereon, which, by means of the crossed belt a, passing around the drum J, revolves the roller upon which said drum J is fixed, thereby causing the elevator M to move in the requisite direction to carry up the grain as desired. Upon the end of the shaft E', beyond the miter-wheel F, is the drum F'. Around this drum and the shaft H of the reel I passes the band or belt h, whereby the said reel is revolved. The shaft of said reel is provided with a joint at H', thereby providing for the raising or lowering of the frame to which the sickle is attached when the machine passes over uneven or broken surfaces.

The device whereby the sickle R is operated is as follows: The wheel C is provided, as shown in Fig. 4, with the beveled gearing C', which gears into the miter-wheel N, which is fixed upon a short horizontal shaft, as is shown in the drawings, to which shaft is also fixed the cogged wheel O, which gears into the cogged wheel P, which is fixed upon a short shaft parallel to the shaft upon which the wheels N and O are fixed, upon which said parallel shaft is also fixed the wheel Q, near the circumference of which is attached the pitman-rod g, which is connected to the sickle R, as shown. By this arrangement the revolution of the wheel C revolves the wheels N and O, which lastmentioned wheel revolves the wheels P and Q, and thus imparts the necessary motion to the sickle R to cut the grain as the machine is moved forward.

The arrangement of the sickle upon the frame and the other necessary parts is similar to that upon ordinary reaping-machines. The wheels K' and T, which support the frame upon which the elevator M and sickle R rest, are adjustable up and down, so as to raise or lower the frame to which the sickle is attached in the following manner, as shown in Fig. 2.

n and n' represent two hollow vertical tubes or sheaths, attached to the frame-work of the rear part of the machine. These hollow sheaths

are each provided with a longitudinal slot on each side thereof. The corrugated or notched posts s s', to which the wheels K' and T are attached, slide up and down in the aforesaid tubular sheaths n and n', and are adjusted and retained in the required position to give the desired elevation to the sickle by the ratchetlevers m and m', which are operated by means

of the cord f and lever i.

When it is desired to raise the sickle the operator, standing in the grain-receptacle A A', moves the lever i toward the drum J, thereby drawing forward the upper ends of the levers m and m', and by the action of the ratcheted arcs thereon upon the corrugated sliding | posts n n', said posts are forced downward, thereby raising the machine to the desired height from the ground, when the lever i is adjusted and fixed by the ratchet-surface l and the hook or catch k, thus retaining the sickle at the desired height, as aforesaid.

Those parts of the reaping-machine which are not herein particularly described are not claimed as my invention, and may be constructed in any suitable manner, the general structure thereof being clearly enough delineated in the drawings to enable any practical mechanic skilled in the matter readily to construct my improved reaping-machine.

What I claim as new, and desire to secure by

Letters Patent, is—

In a reaping or harvesting machine, the combination of the endless apron M, the binding attachment A A', and the lever i, cord f, ratchet-levers m m', and the sliding posts s s', arranged and operating substantially as and for the purposes delineated and described.

JACOB SEIBEL.

Witnesses: T. B. Brown, W. E. MARRS.