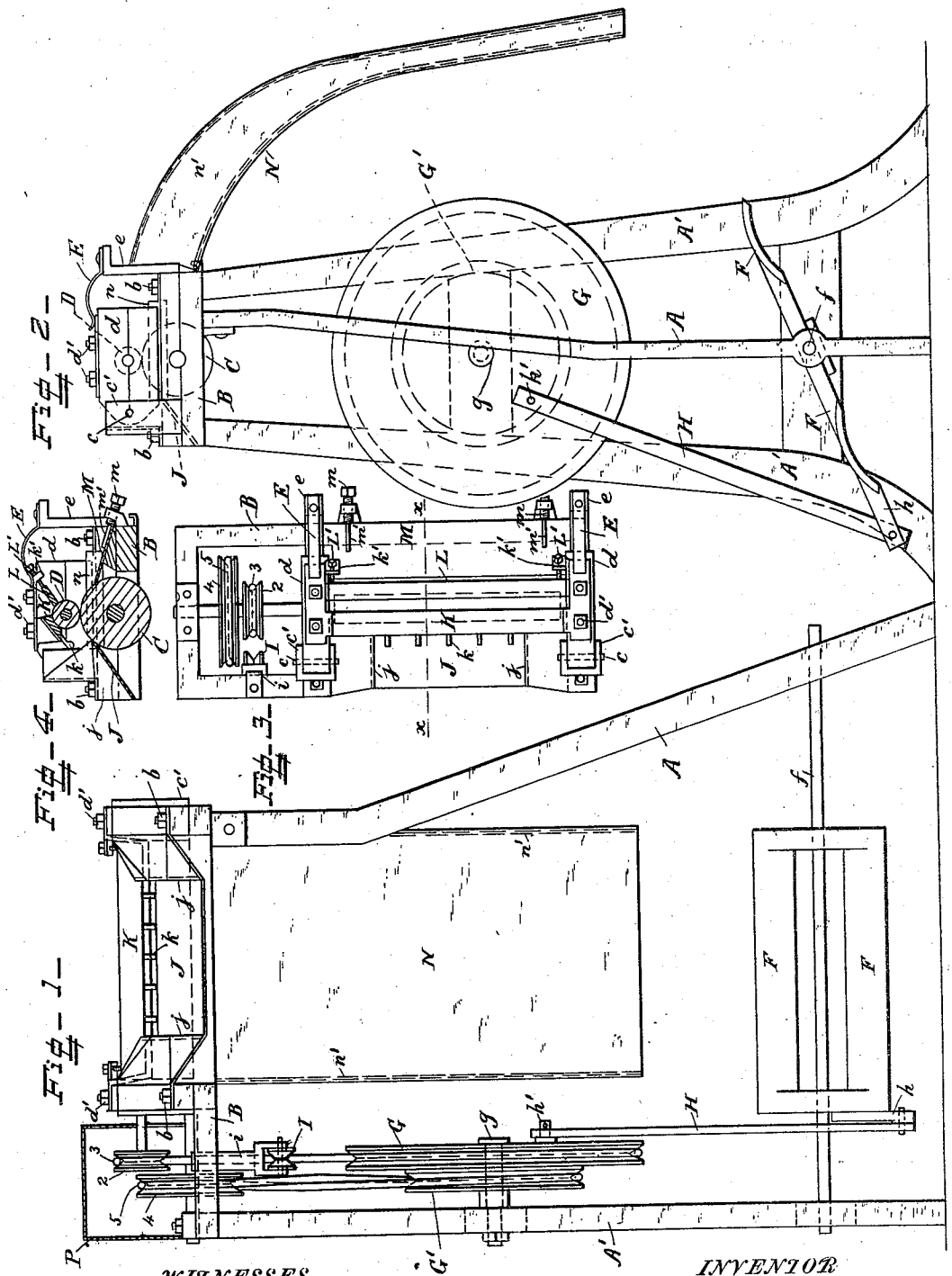
(No Model.)

I. G. MELLINGER.

MACHINE FOR PLUCKING POULTRY.

No. 456,201. Patented July 21, 1891.



WITNESSES

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ISAIAH G. MELLINGER, OF STEPHENSON, VIRGINIA.

MACHINE FOR PLUCKING POULTRY.

SPECIFICATION forming part of Letters Patent No. 456,201, dated July 21, 1891.

Application filed April 9, 1891. Serial No. 388,201. (No model.)

To all whom it may concern:

Be it known that I, ISAIAH G. MELLINGER, a citizen of the United States, residing at Stephenson, in the county of Frederick and State of Virginia, have invented certain new and useful Improvements in Machines for Plucking Poultry; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to machines for plucking the feathers from poultry; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of the machine. Fig. 2 is a front view of the machine. Fig. 3 is a plan view from above; and Fig. 4 is a cross-section through the machine, taken on line *x x* in Fig. 3.

The machine is supported by a stand, preferably consisting of the rear legs A′ and the front leg A. B is a frame supported by the said legs or in any other convenient manner.

C is the lower roll journaled in the frame B, which is preferably made in two parts secured together by the bolts *b*, so that the roll can be taken out when required.

D is the upper roll journaled in the blocks *d*, which are preferably made in two parts secured together by the bolts *d′*, so that the roll may be removed when desired. The blocks *d* are pivoted on pins *c*, which pass through the brackets *c′* on the frame B.

E are springs secured to the brackets *e*, which project from the frame B. The springs E bear upon the tops of the blocks *d* and cause the roll D to bear against the lower roll C. The upper roll is free to rise when any feathers pass between the rolls, while the lower roll remains stationary; but the lower roll may be made the movable roll, if desired, and in the same manner as the upper roll, and the upper roll may remain stationary, or both rolls may be supplied with pressing devices—such as springs—for causing them to bear against each other and move apart when any feathers are passed between them. The rolls are revolved in the same direction in their bearings and with the same surface speed. Any approved mechanism for revolving the rolls may be used and foot-power will be found satisfactory.

F are treadles mounted on the shaft *f*, which is journaled in the legs A A′.

G is a cord-pulley journaled on the pin *g*, which projects from the legs A′, and G′ is a second cord-pulley secured to the pulley G. The two cord-pulleys are revolved by the oscillating treadles by means of the connecting-rod H, which is pivoted to the arm *h*, projecting from one of the treadles at one end and has its other end pivoted to the crank-pin *h′*, which projects from the pulley G. The upper roll is provided with a cord-pulley 2 and a driving-cord 3, connecting it with the pulley G. The lower roll is provided with the cord-pulley 4 and a driving-cord 5, connecting it to the pulley G′.

The operator sits at the front of the machine and his legs straddle the leg A. The driving-gear is preferably arranged at the opposite end of the machine from the operator, so as to be out of his way and leave his hands free to handle the poultry. The cord 5 is crossed, so that both rolls revolve in the same direction. The upper roll is smaller in diameter than the lower roll to better enable it to sieze the feathers, and the cord-pulleys are proportioned so that the surface speed of each roll is substantially the same. The driving-cord of the lower roll is drawn tight, but the driving-cord 3 of the upper roll is provided with a tension device which keeps it tight and permits the upper roll to rise slightly. This tension device consists of a roller I, carried by a spring *i*, which is secured to the frame B, but any approved tension device may be used. When the spring *i* is used, the spring E at that end of the machine may be made lighter than the spring E at the other end of the machine, or it may be dispensed with altogether.

J is an inclined guide-plate secured to the frame B at the left hand of the machine by two of the said bolts *b*. This plate is provided with shoulders *j* to keep the poultry in the middle portions of the rolls.

K is a guard-plate provided with teeth *k*. This guard-plate is secured to the blocks *d* by two of the bolts *d′*, and is provided with

lugs k' at the rear. The teeth k are inclined downward at the front and may project slightly over the guide-plate J.

L is a scraper which bears against the upper roll and slides in slots in the blocks d, and L′ are set-screws, which engage with the lugs k' and bear against the scraper L, so that it may be set up against the roll as often as required.

M is a scraper which bears against the lower roll. This scraper rests in lugs on the back of the frame B, and is set up against the roll by means of the set-screws m, which engage with the lugs M′, which project from the frame B. The set-screws are provided with long projecting ends m', which bear upon the scraper M and prevent it from rising.

N is an apron provided with sides n'. This apron is preferably made of canvas stretched over a wire frame and is attached to the machine at the right hand of the operator. Plates n at the ends of the rolls prevent the feathers from getting between the blocks d and the frame.

P is a cover secured to the frame over the pulleys to prevent feathers from being caught by the cords.

The operator revolves the rolls by means of the treadles and places the fowl on the guide-plate J. He presses the fowl toward the rolls, so that the feathers are drawn between the rolls and are plucked from the fowl. The fowl is turned about upon the guide-plate, so that all its feathers may be plucked. The teeth of the guard-plate permit the feathers to pass between them, but prevent the skin of the fowl from being drawn between the rolls. The plucked feathers are discharged over the apron at the right hand of the machine, and the apron is curved so as to clear the right leg of the operator and leave him plenty of space to work the treadles.

What I claim is—

1. In a fowl-plucking machine, the combination, with a pair of plucking-rolls, of a toothed guard-plate to prevent the skin of the fowl from being drawn between the rolls, substantially as set forth.

2. In a poultry-plucking machine, the combination, with a pair of rolls, of an inclined guide-plate provided with shoulders at its ends, and a toothed guard-plate above the said guide-plate, substantially as set forth.

3. In a poultry-plucking machine, the combination, with the toothed guard-plate, of a pair of plucking-rolls and yielding pressing devices, such as springs, for causing one roll to press against the other roll and permit the feathers to pass between the rolls, substantially as set forth.

4. In a poultry-plucking machine, the combination, with the frame, of the lower roll journaled in the frame, the blocks pivoted at one end to the frame, the upper roll journaled in the said blocks, and springs bearing against the blocks, substantially as and for the purpose set forth.

5. In a poultry-plucking machine, the combination, with the lower roll, of the upper roll of smaller diameter than the lower roll, a toothed guard-plate in front of the rolls, and driving mechanism for revolving the said rolls at the same surface speed, substantially as and for the purpose set forth.

6. In a poultry-plucking machine, the combination, with the frame, of the lower roll journaled in the frame, the scraper supported by the frame, and the set-screws engaging with lugs on the frame and provided with projecting ends bearing on the surface of the said scraper, substantially as and for the purpose set forth.

7. In a poultry-plucking machine, the combination, with the stationary lower roll, of the movable upper roll, the pivoted blocks supporting the upper roll, the springs bearing on the said blocks and adapted to press the upper roll upon the lower roll, driving pulleys and cords for imparting motion to both the rolls, and a tension device operatively connected to the driving-cord of the movable roll, substantially as and for the purpose set forth.

8. In a poultry-plucking machine, the combination, with the frame and the plucking-rolls supported by the frame, of the stationary apron adapted to clear the leg of the operator and attached to the frame behind the rolls for removing the feathers, substantially as set forth.

9. In a poultry-plucking machine, the combination, with the frame and the plucking-rolls supported by the frame, of the driving pulleys and cords at one end of the rolls, a single leg at the other end of the rolls for supporting the frame, the rear legs, the treadles pivoted between the said legs, and a connecting-rod pivoted to the treadles and to one of the said driving-pulleys, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ISAIAH G. MELLINGER.

Witnesses:
HERBERT W. T. JENNER,
PHILIP MAURO.