

(No Model.)

J. W. CHANDLER.

LUBRICATING ATTACHMENT FOR ANIMAL CLIPPING MACHINES.

No. 551,720.

Patented Dec. 17, 1895.

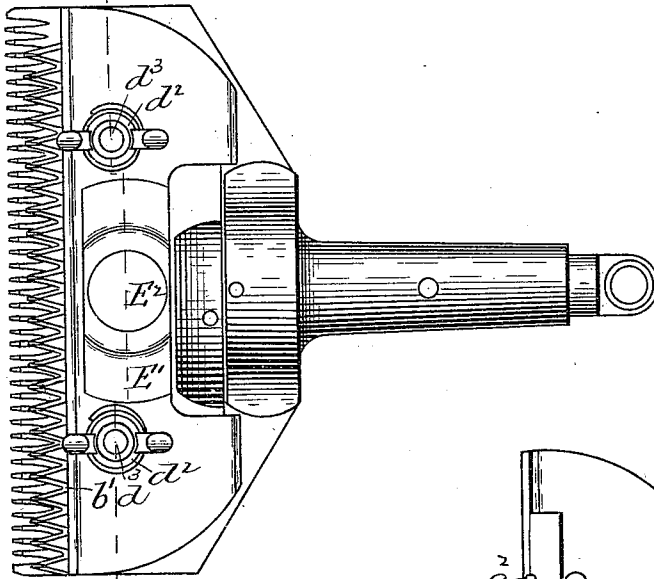


Fig. 1.

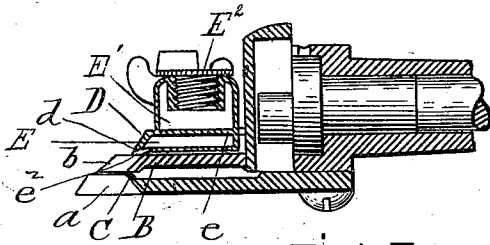


Fig. 2.

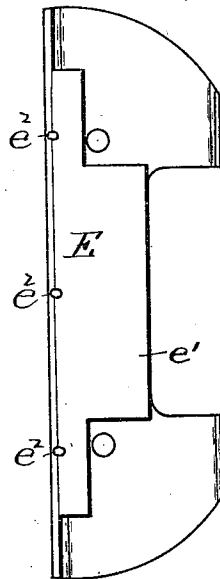


Fig. 4.

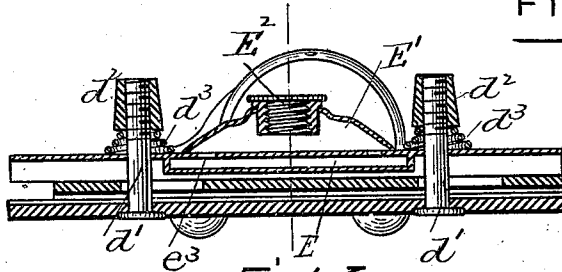


Fig. 5.

WITNESSES

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LUBRICATING ATTACHMENT FOR ANIMAL-CLIPPING MACHINES.

SPECIFICATION forming part of Letters Patent No. 551,720, dated December 17, 1895.

Application filed July 9, 1894. Serial No. 516,885. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. CHANDLER, a citizen of the United States, residing at East Corinth, in the county of Penobscot and State of Maine, have invented a new and useful Improvement in Lubricating Attachments for Animal-Clipping Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

Clipping-machines of the kind to which my invention is applied have a stationary blade with teeth at its outer edge, a movable blade with teeth at its outer edge and a pressure or clamp plate which bears upon the movable blade and clamps it with some pressure to the fixed blade. In use, the movable blade is reciprocated rapidly, and as there has been no means by which a continuous supply of oil or lubricating material can be fed to the bearing parts of the knives and pressure-plate the knives soon work hard and require very frequent oiling, thus consuming a great deal of time, and the expense of keeping the clippers in running condition is large because of the frequent grinding required and because it is necessary to have more clippers than would be necessary to do the work if the knives could be maintained in a cutting condition longer.

My invention seeks to improve the operation of this type of clippers by automatically supplying the bearings thereof with oil or other lubricant while the machine is in operation or as needed. To enable this to be accomplished, I form an oil-reservoir in the cavity between the clamp-plate and the movable knife.

It will be understood that the clamp-plate is generally hollow and that only its outer edge bears upon the movable knife, this being for the purpose of reducing friction, and this oil-reservoir is provided at its front lower corner with escape ducts or openings through the bearing edge of the clamp-plate whereby oil is fed to the reciprocating knife between the bearing-section of the clamp-plate and the knife and at points also where the oil may flow down between the teeth of the reciprocating knife and find its way to the bearing between the two knives. This reser-

voir may be filled from the end of the bearing-plate or through its center, and I prefer the latter way, although I do not confine myself to it.

In the drawings, Figure 1 is a view in plan of a clipper having the features of my invention. Fig. 2 is a view in vertical section upon the dotted line of Fig. 3. Fig. 3 is a view in section upon the dotted line of Fig. 1, and Fig. 4 is a view of the clamp-plate and oil-reservoir inverted.

A is the lower or fixed knife or blade and *a* its teeth. B is the reciprocating knife or blade and *b* its teeth. Between them is the bearing C.

D is the clamp-plate, and *d* is the bearing between it and the reciprocating knife. It is held to the blade A by means of screw studs or bolts *d'*, (see Fig. 3,) adjusting-nuts *d''* and springs *d'''*, the bolts or studs passing from the lower knife A through long slots in the movable knife and holes in the pressure-plate and the nuts screwing against the springs which bear upon the pressure-plate.

The pressure-plate has the cavity *e* on its under side ordinarily. This I have utilized by practically filling it with a casing *e'* which forms a long flat oil-holding reservoir E between the plate and the movable knife. This reservoir has outlet ducts or passages *e''* along its lower front edge and which extend partly into the bearing *d*, (see Fig. 4,) so that the oil is fed directly to the bearing *d*, and this bearing *d* is slightly in front of the back ends of the cuts or spaces between the teeth, so that the oil not only escapes upon the bearing, but also through the spaces between the teeth and the bearing C between the two knives, and thus the two principal bearings of the clipper are lubricated.

The reservoir is preferably supplied with oil from the upper side of the plate by means of a filling-tube E' made of a size to also hold some oil and which connects with the reservoir by one or more holes *e'''* in the clamp-plate. This filling-tube has a threaded opening which is closed by a screw-cap E². (See Fig. 3.) The blade B is reciprocated in any of the usual ways.

The advantages of the invention have been given in connection with the description of its construction and operation.

It will be understood that the knives in the old type of clippers soon become dry and require frequent oiling by hand, and much time is thus taken to keep the clippers in running condition and the longer the knives are running the more frequently they need to be oiled. This is because the pressure has to be increased as the knives lose their edges, and the greater the pressure the oftener the knives require oiling. Otherwise the clippers will heat even to the extent of drawing the temper. Frequent sharpening or grinding, which is expensive, makes it necessary to have more clippers than are required to do the work when

the knives are maintained in a cutting condition longer.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

In a clipping machine, the combination of the oil reservoir E having the openings e^2 , the auxiliary reservoir E', the openings e^3 , and the screw cap E², as and for the purposes described.

JOHN W. CHANDLER.

In presence of—

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