H. BAUCHET.

MOTOR PLOW OR TILLER.

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Fig. 1.

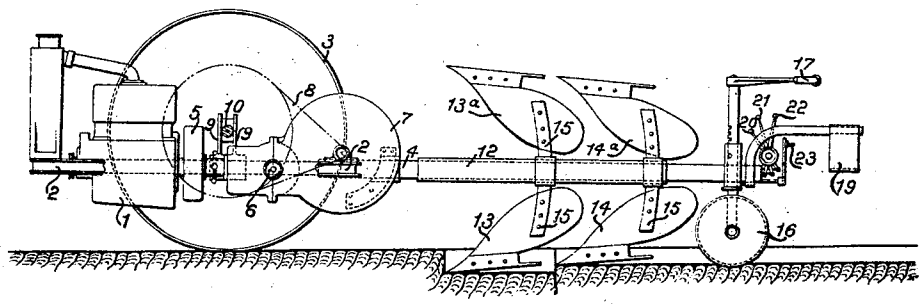
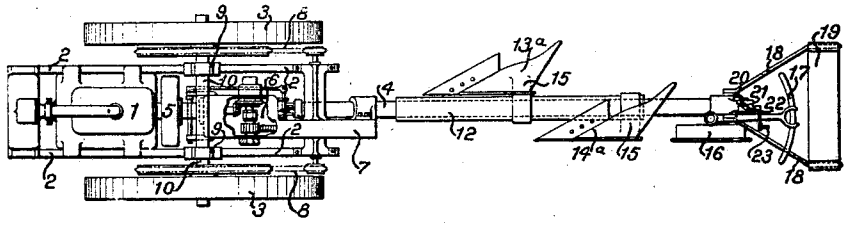


Fig. 2.



INVENTOR

H. Bauchet

BY H. R. Kerslake

ATTORNEY

UNITED STATES PATENT OFFICE.

HENRY BAUCHET, OF SENS, FRANCE.

MOTOR PLOW OR TILLER.

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To all whom it may concern:

Be it known that I, HENRY BAUCHET, a citizen of the French Republic, residing at No. 63 Rue Chambertrand, Sens, Department of Yonne, France, have invented certain new and useful Improvements in Motor Plows or Tillers, of which the following is a specification.

In the construction of motor plows, attention must be paid to two essential requirements which are generally expressed by agriculturalists, more particularly those farming their lands on the intensive system. These two essential requirements are:

1. The driver must be situated at the rear of the plowing apparatus in order that he may be able to have the work done by the latter under his constant observation.

2. The machine must have double or reversible plowshares, that is to say, plowshares which will turn up the soil alternately in both directions, for instance to the right on going forward and to the left on returning, so that a furrow can be started immediately at each end of the field. It is well known that this method of plowing known as "straight" or "flat plowing," greatly facilitates the subsequent work of the harvesting machines and avoids the loss of time consumed in turning the plow around which is experienced when employing single plows.

Some motor plows as hitherto constructed satisfy one or the other of the two aforesaid requirements. The present invention has for its object to provide an improved motor plow or tiller which will satisfy both requirements.

The characteristic feature of the improved motor plow consists substantially in the manner in which the plowing apparatus or tilling apparatus is connected to the motor tractor.

In order that the driver shall be situated at the rear of the plowing or tilling apparatus, the said plowing or tilling apparatus is mounted by means of a collar or collars or other suitable devices on a tubular frame which serves as a tool holder and also as a protecting sheath for the control rods leading to the engine and for the transmitting parts.

This tubular frame constitutes also the axis around which the reversible plowshares or tilling tools are reversed when it is desired to reverse the turning-up direction of the soil at the end of the furrow. Owing to the fact that the controls are located inside the said tubular frame, their position remains unaltered whatever may be the position of the plowing or tilling apparatus relatively to the said frame.

The driver being situated at the rear of the plowing apparatus, is therefore able to appreciate at all times the resistances opposed to the operation of the machine and is thus able at all times to adapt the power of the engine and also the speed of advance of the machine to the work to be done.

He is also able at all times to regulate the steering of the machine.

The control connections being located inside the tubular frame, are thus sheltered from dust and shock.

Moreover, by this invention the frame of the plow or tiller is of simple and rigid construction and allows of the plowing or tilling apparatus or tools being employed in any desired manner according to the work to be done without entailing any modification either in the said frame or in the control connections.

An embodiment of this invention is illustrated by way of example in the accompanying drawings in which:

Figure 1 is a side elevation of the improved motor plow, the left hand driving wheel being removed.

Fig. 2 is a plan thereof.

1 is the engine mounted on the framing 2, balanced on the two driving wheels 3. The framing 2 is rigidly connected to a tubular frame 4 that carries the plowing apparatus. The engine 1 provided with a clutch 5 drives the driving wheels 3 through a change speed gear 6, a speed-reducing gear inclosed in the casing 7, and chains 8.

For the purpose of balancing the machine, the framing 2 is adapted to be moved forward or backward in guides 9, whereby it is suspended from the axle 10.

The tubular frame 4 is fixed to a casing 7 or it may be cast in one piece therewith. 12 is a tube slipped over the tubular frame 4. This tube 12 carries two reversible sets of plowshares 13, 13^a, and 14, 14^a that are fixed rigidly to the tube 12 by means of stays 15. Fig. 2 only shows the portion 13^a and 14^a of the two reversible sets of plowing apparatus in a position of rest.

It is to be understood that the plowshares may also be mounted on the tubular frame 4 by means of collars, etc.

The reversing of the plowing sets may be effected by means of levers in the same manner as in animal-drawn Belgian plows, the plows being fixed in place by a suitable locking mechanism.

The rear end of the tubular frame 4 is supported by a steering wheel 16 which can be operated by the driver by means of the sector 17. This steering wheel is provided with a screw or rack to allow of adjusting the height of the tubular frame 4.

At the end of the frame 4 are fixed arms 18 carrying a seat 19 for the driver.

In apparatus of low power this seat, as well as the steering wheel 16, may be dispensed with, and in such cases the driver steers the machine by means of the arms 17.

In both cases, the driver has always within his reach the levers or controls 20, 21, 22 and 23 for controlling the throttling of the explosive mixture in the case of an internal combustion engine, the speed-changing mechanism, the mechanism for reversing the travel of the machine, and the starting mechanism, through the medium of rods located inside the tubular frame 4.

What I claim is:—

1. In a motor plow or tiller of the type wherein the plowing or tilling apparatus is drawn by a motor tractor, the combination of a tubular frame adapted to be drawn by said motor tractor, a driver's seat located at the rear of said tubular frame, a plowing or tilling apparatus carried by said tubular frame in front of said driver's seat, controls for controlling the operation of said motor tractor, located within reach of said driver's seat, and connections leading from said controls to said motor tractor, located inside said tubular frame.

2. In a motor plow or tiller of the type wherein the plowing or tilling apparatus is drawn by a motor tractor, the combination of a tubular frame adapted to be drawn by said motor tractor, a driver's seat located at the rear of said tubular frame, a reversible plowing or tilling apparatus reversible about said tubular frame on a bearing thereon in front of said driver's seat, controls for controlling the operation of said motor tractor, located within reach of said driver's seat, and connections leading from said controls to said motor tractor, located inside said bearing on said tubular frame.

In testimony whereof I have signed my name to this specification.

HENRY BAUCHET.