

May 28, 1929.

J. HANSEN

1,714,778

SHEARING OR CLIPPING MACHINE

Filed Aug. 20, 1928

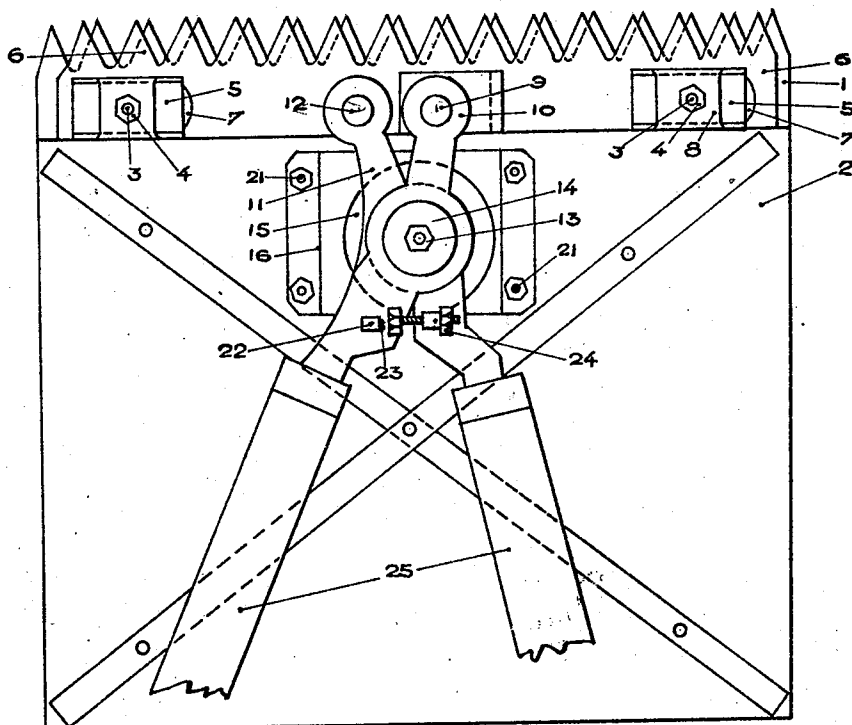


Fig. 1

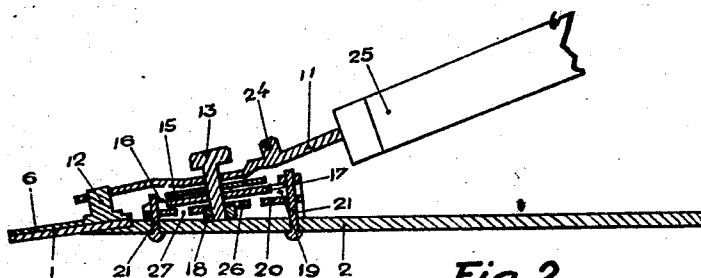


Fig. 2.

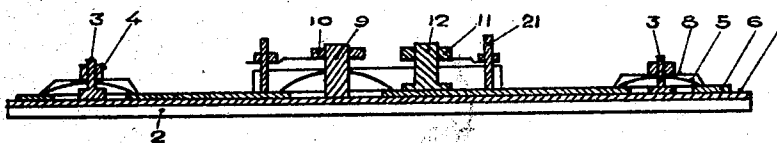


Fig. 3.

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SHEARING OR CLIPPING MACHINE.

Application filed August 20, 1928, Serial No. 300,639, and in Denmark September 7, 1927.

This invention relates to a shearing machine or hedge clipper having a multiplicity of shearing edges as distinguished from the two shearing edges of ordinary scissors or shears.

In shearing machines having a pair of toothed cutters providing a multiplicity of shearing edges, generally one of them is held still by one hand, while the other is given a reciprocating sliding movement by the other hand, as a rule the right hand. Nevertheless, it is more natural with most people to move both hands towards each other.

With the known clippers or shearing machines, having a common pin on which the two operating legs or handles are pivoted, mounted on a centre line of a guiding board or plate, a shock results every time the hands are brought together as well as when they are separated, causing lateral oscillations of the guiding plate on which is generally mounted one of the toothed cutters. Uneven trimming accordingly results, unless the operator of the clipper maintains the stationary leg or handle absolutely still and firm.

The present invention has for its primary object to provide a clipper by which such lateral oscillations as aforesaid are avoided, but instead the guiding plate is given a slight reciprocation along a line which lies at right angles to the sliding path of the toothed cutters. This is achieved by providing a shifting support for the common pivot for the legs on the guiding plate, instead of a stationary support which the pivot pin has in known constructions of clipper.

In order that the invention may be clearly understood and readily carried into practice, I have appended hereto one sheet of drawings, illustrating the same, wherein:—

Figure 1 is a plan view of the cutting portion of a clipper according to the invention,

Figure 2 is a transverse vertical cross section, with certain parts removed, and

Figure 3 is a longitudinal vertical cross section, again with certain parts removed.

The toothed cutter 1, which in the construction shown is fastened to the guiding board 2, is provided with two screw bolts 3, on which are nuts 4 which keep the springs 5 pressed down upon the other toothed cutter 6. The two bolts 3 project through the elongated slots 7, and protector bridges 8 straddling over the springs 5, are provided to avoid access of sand beneath the springs.

On the toothed cutter 1 is mounted a pin 9,

which projects up through the groove in the toothed cutter 6, and a leg or handle 10 is rotatable on said pin. The other operating leg or handle 11 of the clipper rotates on the pin 12 mounted on the toothed cutter 6, while the pivot 13 common to both legs 10 and 11 holds together the disc 14, the two legs, the covering disc 15, the casing 16, and the sliding disc 17 by means of the nut 18, which fits into a counter-plate 26 fastened to the sliding disc 17 by a small screw (not shown).

The pivot 13 for the handles or legs 10 and 11, moves within the chamber 27 along a curved path, and above this chamber 27 is another chamber 19 between the casing 16 and the bottom plate 20, in which the sliding disc 17 moves. Four bolts 21 hold the arched casing 16 and the bottom plate 20 assembled on the guiding board 2.

A buffer 22 on one of the legs or handles has a leather facing 23, and another buffer on the other leg or handle carries a bolt and nut 24 which serve to limit the stroke of the handles to an adjustable extent.

It will be seen that the pin 9 must be considered as the stationary or permanent point in relation to which the pin 12 and the pivot 13 move, either when the handles 10 and 11 are moved towards, or separated from each other.

The cutter 1 and the guiding board 2 may be made in one single piece, in which case the pivot 13 would be slidably held upon the guiding board 2 partially by the covering disc 15, and partially by the sliding disc 17, one on each side of the guiding board 2, which in such construction must be provided with a curved slot in which the pivot 13 may slide.

The guiding board 2, of course, serves also as a direct support for the pivot 13.

What I claim is:—

1. A clipper comprising a pair of relatively slidable toothed cutters, resilient means pressing said cutters together, handles pivotally connected to respective cutters, a pivot for said handles, a plate fixed in relation to one of said cutters, a sliding disc on one side of said plate, and a covering disc on the other side of said plate, said sliding and covering discs slidably connecting said pivot with said plate.

2. A clipper comprising a pair of relatively slidable toothed cutters, resilient means pressing said cutters together, handles pivotally connected to respective cutters, a pivot for said handles, a plate fixed in relation to one

of said cutters, a sliding disc on one side of said plate, and a covering disc on the other side of said plate, said sliding and covering discs slidingly connecting said pivot with said
5 plate, and the pivot of the handles moving in a curved path.

3. A clipper comprising a pair of relatively slidable toothed cutters, resilient means pressing said cutters together, handles pivotally
10 connected to respective cutters, a pivot for said handles, a plate fixed in relation to one

of said cutters, a sliding disc on one side of said plate, and a covering disc on the other side of said plate, said sliding and covering discs slidingly connecting said pivot with
15 said plate, a chamber in which the handle pivot moves, the said pivot for the handles moving in a curved path.

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

JOHANNES HANSEN.