Sept. 7, 1948. L. BROWNING 2,448,765

TRIGGER MECHANISM

Original Filed April 14, 1944

Fig. 1.

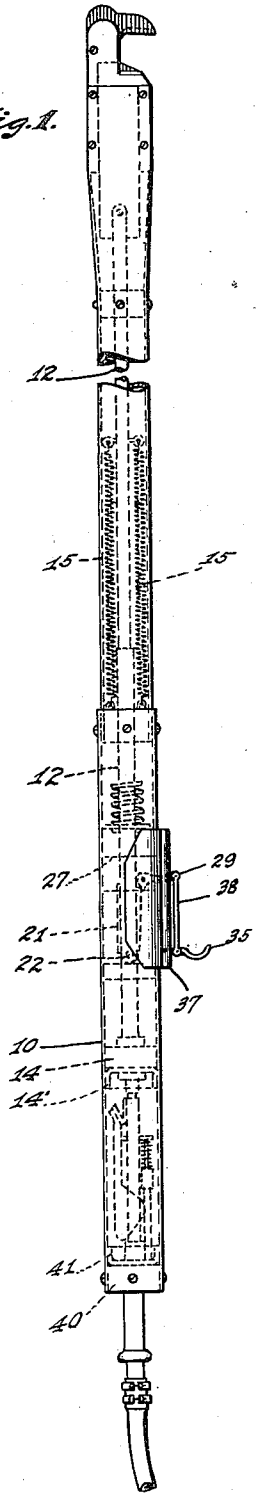


Fig. 2.

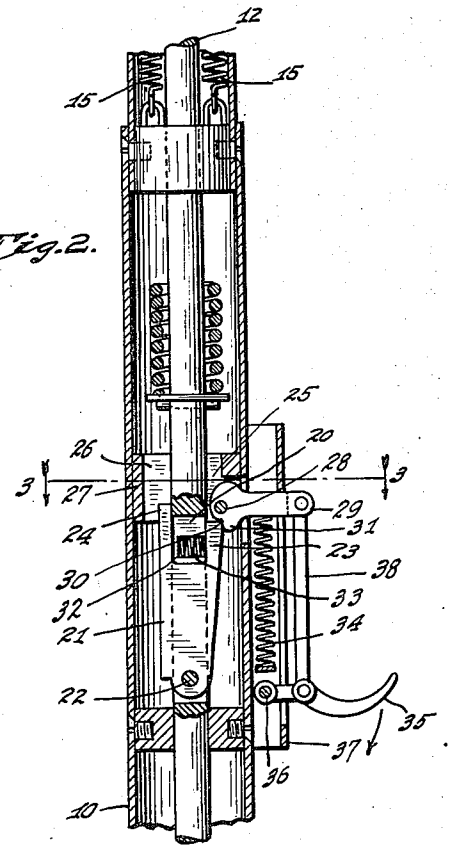
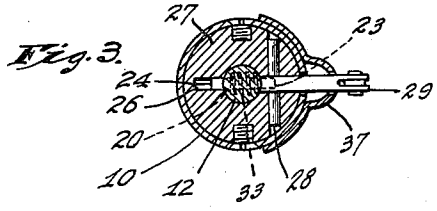


Fig. 3.



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TRIGGER MECHANISM

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Original application April 14, 1944, Serial No. 530,975. Divided and this application October 11, 1945, Serial No. 621,768

3 Claims. (Cl. 188—67)

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This application is a division of my copending application Serial Number 530,975, filed April 14, 1944, upon which Patent Number 2,391,676 issued on December 25, 1945.

The object of my invention is to provide an improved trigger mechanism by means of which a pressure-affected element may be held, released, and guided.

The accompanying drawings illustrate an embodiment of my invention in a pruning tool, but it will be readily understood that the novel mechanism may be useful in other embodiments.

Fig. 1 is an elevation of a pruning tool in which the improved trigger mechanism is incorporated;

Fig. 2 is a fragmentary axial section of the trigger mechanism and associate parts; and

Fig. 3 is a section on line 3—3 of Fig. 2.

In the drawings, 10 indicates a tubular main body in which is mounted a rod 12 biased in one direction by one or more springs 15 and provided with a piston 14 and packing 14' fitting within body 10.

Rod 12, intermediate its length, is diametrically slotted at 20 (Fig. 2) to receive the latch 21 pivoted at 22. Latch 21 is medially slotted at its free end to form a latch finger 23 and a stop finger 24. The width of latch 21 exceeds the diameter of rod 12 so that it projects radially at opposite sides of rod 12 and extends into keyways 25, 26 formed in the guide ring 27 mounted within barrel 10. Pivoted at 28, in keyway 25, is the trigger 29 having an abutment shoulder 30 for reception of the tip of latch finger 23, and a finger 31 overlying said finger 23. Rod 12 within the area between fingers 23 and 24, is transversely bored to form a pocket 32 within which is seated a spring 33 engaging finger 23 and normally biasing the latch 21 to the position shown in Fig. 2.

Trigger 29 is biased to the position shown in Fig. 2 by spring 34 and, in order to ease operation of the trigger, I provide a finger lever 35 pivoted at 36 on yoke 37 secured to barrel 10 and connected to the trigger by link 38.

Latch 21 sliding in the keyways 25 and 26 prevents rotation of plunger rod 12 during its reciprocation, and when the parts are in normal, at rest, position (Fig. 2), the tip of finger 23 engages shoulder 30 substantially in line with pivot 28. When finger lever 35 is pulled in the direction indicated by the arrow (Fig. 2) the free end of the latch 21 is swung to the left to clear the latch from obstruction by the trigger.

The lower end of barrel 10 is closed by the axially bored plug 40 provided with sealing cup 41 which provides an air-tight association with barrel 10.

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Rod 12 may be moved against the bias of springs 15 by any suitable means, as by air pressure applied to piston 14—14'.

I claim as my invention:

1. Trigger means, comprising a main body, a reciprocable member carried by the main body, a pivoted latch carried by said reciprocable member and biased laterally thereof, and a trigger comprising a plate pivoted on an axis transverse of the line of movement of the reciprocable member, said plate having an abutment surface engageable by the latch to restrain movement of said reciprocable member in one direction and a finger engaging said latch to swing its free end away from said abutment surface to eliminate said restraint, one edge of said plate projecting laterally beyond the reciprocable member with said edge slidable in a guide groove extending lengthwise of the line of movement of the reciprocable member.

2. Trigger means, comprising a main body, a reciprocable member carried by the main body, a pivoted latch carried by said reciprocable member, spring means biasing said latch radially outwardly relative to said member, and a trigger pivoted on an axis transverse of the line of movement of the reciprocable member, said trigger having an abutment surface engageable by the latch to restrain movement of said reciprocable member in one direction and having a finger engaging said latch to swing its free end away from said abutment surface to eliminate said restraint.

3. Trigger means, comprising a main body, a reciprocable member carried by the main body, a pivoted latch carried by said reciprocable member and biased laterally thereof, and a trigger pivoted on an axis transverse of the line of movement of the reciprocable member, said trigger having an abutment surface engageable by the latch to restrain movement of said reciprocable member in one direction and said trigger having a finger angularly related to said abutment surface and movable therewith, said finger being engageable with said latch, upon movement of said trigger in one direction, to shift said latch against its bias positively out of engagement with said abutment surface.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
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