

June 12, 1923.

F. DEXTER

1,458,878

SCISSORS OR PRUNERS FOR CUTTING FRUIT, FLOWERS, OR THE LIKE

Filed June 16, 1919

Fig. 1.

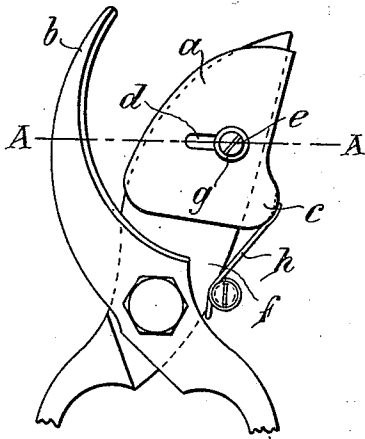


Fig. 2.

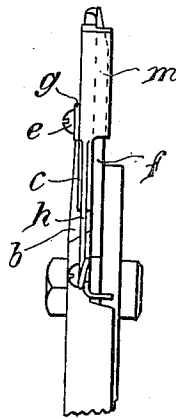


Fig. 3.

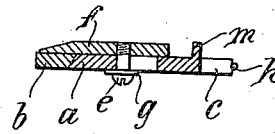


Fig. 4.

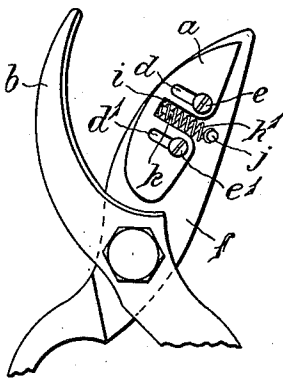


Fig. 6.

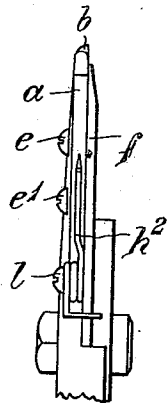
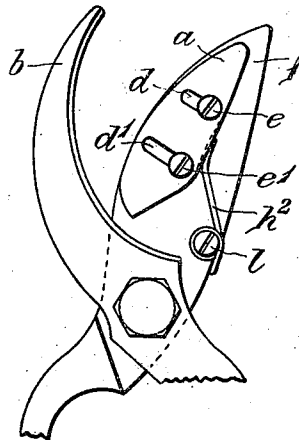


Fig. 5.



Inventor:-
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By:- B. Singer, Att'y

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UNITED STATES PATENT OFFICE.

FRANK DEXTER, OF LONDON, ENGLAND.

SCISSORS OR PRUNERS FOR CUTTING FRUIT, FLOWERS, OR THE LIKE.

Application filed June 16, 1919. Serial No. 304,432.

To all whom it may concern:

Be it known that I, FRANK DEXTER, merchant, of 42 Harpenden Road, West Norwood, London, England, have invented new and useful Improvements in Scissors or Pruners for Cutting Fruit, Flowers, or the like; and I do hereby declare the following to be a full, clear, and exact description of the same.

10 This invention relates to the kind of pruners or scissors for cutting fruit, flowers or the like in connection with the blades of which means are provided for gripping the stalk of the fruit, flower or the like when the same is cut by the scissors and holding such stalk until the blades of the scissors are opened.

15 The invention relates more particularly to pruners or scissors provided with curved cutting blades, such scissors being, as is well known, more efficient for cutting stalks, or stems, than are scissors provided with straight cutting blades.

20 The object of the invention is to simplify such means whilst at the same time rendering the same more efficient than hitherto has been the case.

25 The invention further comprises an improved construction and arrangement of parts, whereby the pruner, or scissors, is, or are, rendered more compact than such devices as heretofore known.

30 Further features of the invention will hereinafter appear from the following description and from the claims appended to and forming part of this specification.

35 In order that my invention may be fully understood and more readily carried into practice, I have caused to be appended hereto a drawing illustrating various constructions by way of example, wherein:—

40 Figure 1 is an elevational front view of the cutting jaws of a pair of fruit and the like cutting scissors or pruners.

45 Figure 2 is a view in side elevation, and Figure 3 is a horizontal section on line A—A of Figure 1, with the cutting blades in closed position.

50 Figure 4 is an elevational front view showing a modification.

55 Figure 5 is an elevational front view, and Figure 6 is a view in side elevation showing another modification.

In the construction shown in Figures 1 to 3 the gripping face of the jaw *a* is of approximately the same shape as the blade *b*

with which it co-operates in gripping the stalk and a nose *c* is formed on the opposite face or rear of the jaw *a*. The jaw *a* is provided with a straight cross slot *d* and is held in position by a screw *e* passing through the slot *d* and screwed into a tapped hole in the cutting blade *f*, a washer *g* being preferably provided between the head of the screw *e* and the jaw *a*. A spring member *h* (or members) is secured to the blade *f*, or it may be secured to the shank or handle of the cutting blade *b*, and it bears against the rear face of the jaw *a* which is forced by the spring pressure thus obtained into a position with the inner end of its gripping face in contact with the inner end of the opposed cutting blade. A flange *m* may be provided at the rear of the jaw *a* to abut against the rear edge of the blade *f* and thereby retain the jaw *a* in its correct position when the blades *b* and *f* of the scissors are opened to the full extent. The gripping face of the jaw *a* is preferably inclined to correspond with the bevel on the opposed cutting blade *b*.

Said jaw may be of any suitable shape or size, for instance, it can be such that the gripping face thereof normally moves in advance of the cutting edge of the blade to which it is connected and only lags behind such cutting edge when it comes into contact with and grips the stalk to be cut, or said gripping edge may be arranged to remain level with the cutting edge of the blade until the blade commences to cut the stalk. The variations in the relative positions of the gripping edge of the jaw and the cutting edge of the blade to which it is connected may be modified by altering the curvature of the jaw, the position and shape of the slot and the position and shape of the rear face of the jaw.

In operation, the closing of the scissors to cut the stalk causes the jaw *a* to oscillate, or rotate bodily on the cutting blade *f* owing to the contact of the lower part of the gripping edge with the opposed cutting blade *b* and the spring member *h* (or members) yieldingly retains such portion in contact with the opposed blade *b*. As the cutting movement proceeds the jaw *a* continues to oscillate or rotate bodily on the cutting blade *f* until it comes into contact with the stalk when it remains stationary in relation to the opposed blade *b* and allows the cutting blade *f* to complete its

closing movement and thereby cut the stalk. The arrangement is such that as the cutting blades f and b are closed the jaw a approaches the opposed cutting blade b from the inner part of its face outwards until it lies everywhere in contact with the blade b . Thus a very certain and effective gripping effect is obtained on the stalk at whatever point on the cutting blades the stalk is situated. The nose c at the rear of the jaw ensures the correct pressure of the spring during the whole of the operation.

The gripping jaw may be readily removed by taking out the screw holding the same and the scissors can then be used for pruning in the usual manner.

It will be appreciated that the spring pressure may be applied by any other suitable means and at any other suitable places on the jaw. For example a spring may be inserted in the slot in the jaw to act in conjunction with the pin or screw and one of said slots. In lieu of a nose on the rear of the jaw a projection may be provided on the side of the jaw to co-operate with the spring member, or members, and such spring member, or members, may be attached to the scissors at any other suitable part thereof.

In the construction shown in Figure 4, the jaw a is provided with slots d and d^1 and slidably and oscillatably connected to the blade f by screws e and e^1 . A gap i is provided in the jaw a to receive a helical spring h^1 attached to the blade f by a pin j . A pin k is provided at the end of the gap i to prevent the spring h^1 from leaving the gap i . The jaw a operates in the manner hereinbefore described, but this construction permits the use of a smaller jaw and is more compact. The slot d^1 is such that the jaw a is free to oscillate on the screw e .

As illustrated in Figures 5 and 6, which shows the preferred embodiment of my invention, the jaw a is provided with two slots d , d^1 , of which d^1 is longer than d . Screws e and e^1 pass through these slots and are screwed into the blade f . The heads of

the screws e and e^1 retain the jaw a in sliding contact with the blade f and the slot d^1 is such that it permits the jaw a to oscillate on the screw e . A spring h^2 is mounted on the blade f in sliding contact with the jaw a by means of the screw l the one end of the spring h^2 is held against displacement by means of a shallow groove provided in the rear edge of the jaw a . The other end of the spring h^2 is cranked to engage the back of the blade f .

In all the above described constructions, the engaging face of the jaw a may be serrated to increase its holding power.

What I claim is:

1. A cutting device of the type specified, comprising in combination, two blades, a jaw mounted on one of said blades, two transverse and parallel slots in said jaw, two pins projecting laterally from said blade and engaging said slots, a recess extending from the back of said jaw between and parallel with said slots, and a spring located within said recess and bearing with one end against said jaw and with the other end against said blade in such manner as to force it resiliently towards the other of said blades.

2. A cutting device of the type specified, comprising in combination, two curved blades, a curved jaw mounted on one of said blades, two transverse and parallel slots in said jaw, two pins projecting laterally from said blade and engaging said slots, a recess extending from the back of said jaw between and parallel with said slots, and a spring located within said recess and bearing with one end against said jaw and with the other end against said blade in such manner as to force it resiliently towards the other of said blades.

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

FRANK DEXTER.

Witnesses:

S. A. HART,
FRANK DEXTER, Jr.