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Ignatius Grass'

Improvements in Pruning Shears.

No. 119,229.

Patented Sep. 26, 1871.

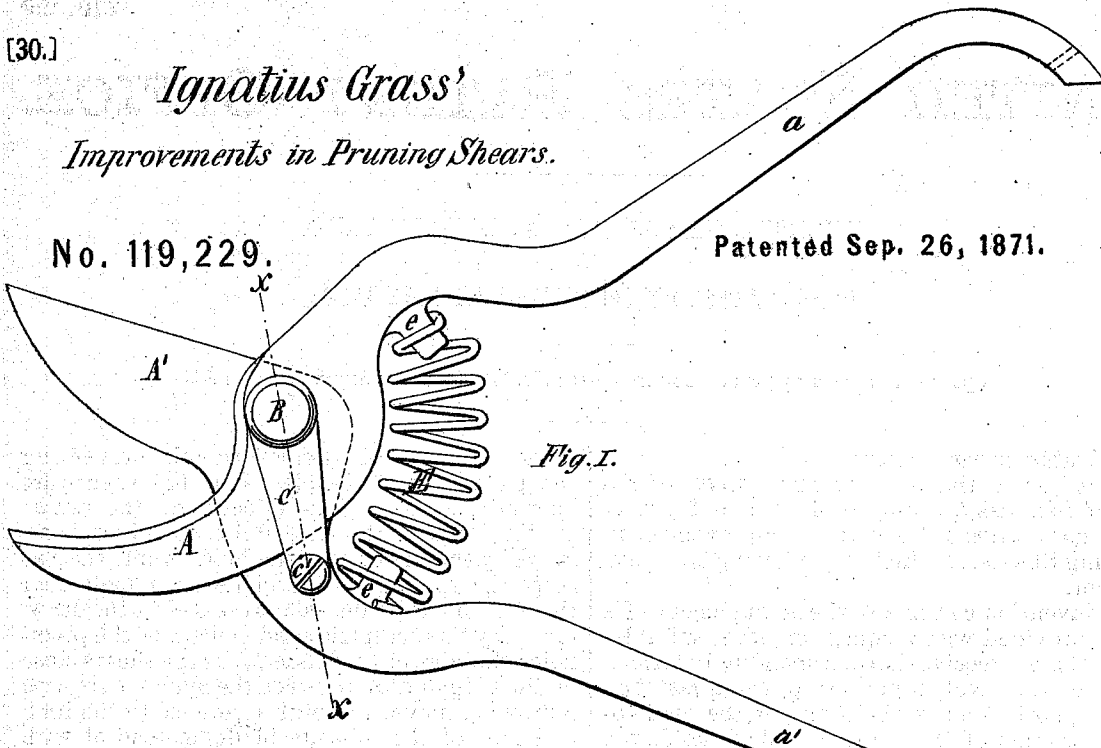


Fig. I.

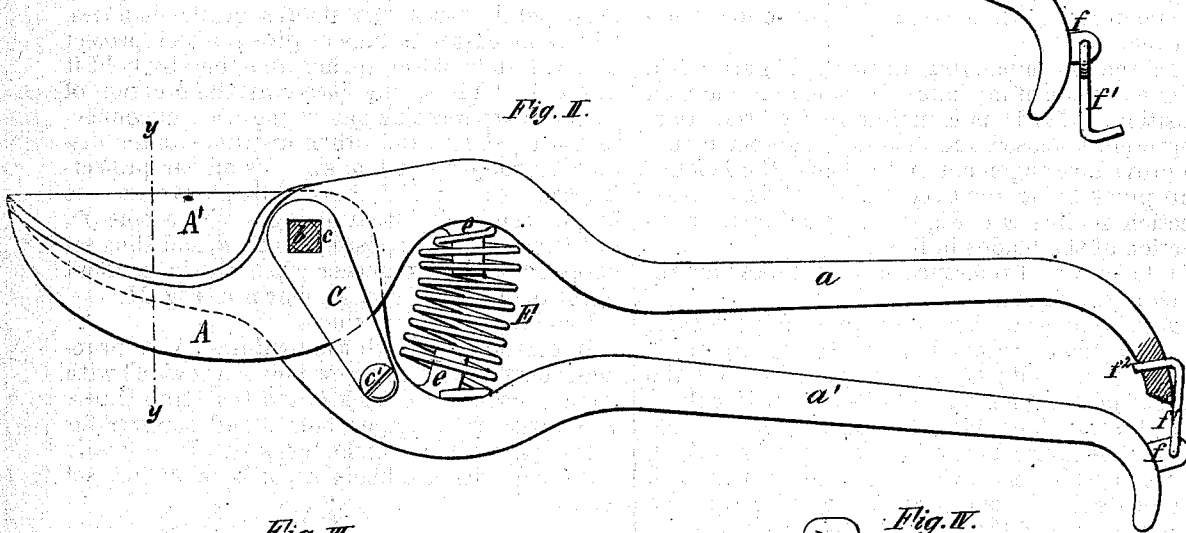


Fig. II.

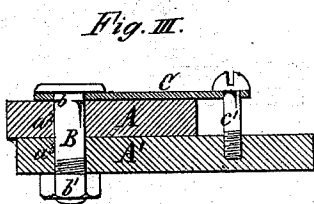


Fig. III.

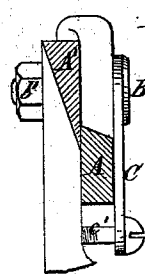


Fig. IV.

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UNITED STATES PATENT OFFICE.

IGNATIUS GRASS, OF SANDUSKY, OHIO.

IMPROVEMENT IN PRUNING-SHEARS.

Specification forming part of Letters Patent No. 119,229, dated September 26, 1871.

To all whom it may concern:

Be it known that I, IGNATIUS GRASS, of the city of Sandusky, county of Erie, and State of Ohio, have invented a certain Improvement in Pruning-Shears, of which the following is a specification:

My invention consists in the arrangement of a strap, provided with a square or other suitably-formed hole to receive the correspondingly-formed shank of the pivot, which strap, being fastened at its opposite end to the shank of the blade to which the nut of the pivot is applied, holds the said pivot stationary with reference to said latter blade, and thereby prevents the nut from working loose as the shears are operated, which is a common result where no such construction is employed.

In the accompanying drawing, Figure I is a side elevation of my improved shears in an open position. Fig. II is a similar view of the same, represented closed and fastened together by my improved arrangement of the hook, the head of the pivot being removed. Fig. III is a cross-section in line *xx*, Fig. I. Fig. IV is a cross-section of the blades in line *yy*.

Like letters of reference designate like parts in each of the figures.

A A' represent the two blades of the shears, and *a a'* the corresponding handles thereof. B is the pivot-bolt; C, the strap for holding the pivot from turning, formed with a square hole, *c*, Fig. III, in which fits the square shank *b* of the pivot, the latter being provided with a nut, *b'*, at its opposite end, which rests in contact with the blade A'. *c'* is a screw passing through the opposite end of the strap C, and screwing into the shank of the handle of the blade A'. By this construction it is evident that the pivot B is held stationary with reference to the jaw A', while the

blade A turns freely thereon, thereby preventing the movement of the blades, as the shears are operated, from turning or loosening the nut *b'*. In the blade A the hole *a²* for the pivot is arranged near the edge of the blade, while the corresponding hole *a³* in the blade A' is made near the back of the blade, as represented in the drawing. By this eccentric arrangement of the pivot-holes the edge of the blade A', as the shears close on the twig or limb between the blades, cuts with a drawing movement with reference to the limb and edge of the opposite blade, instead of with the ordinary closing movement, whereby less power suffices to operate the instrument than would otherwise be required. E is a spiral spring arranged between the shanks of the handles, which are cast with lugs or pins *e*, which project into the ends of the spring and thereby hold it in place. This spring performs the function of the ordinary reacting flat spring used in connection with shears and other instruments for distending the jaws or blades. *f* is an ear, projecting from the end of the handle *a¹*, to which is hinged the hook *f¹* that engages with a hole, *f²*, in the end of the opposite handle *a*, and thus secures the blades together when the instrument is not required for use, as shown in Fig. II.

I claim as my invention—

In combination with the blades A A' of pruning-shears, the pivot screw-bolt B provided with rectangular-shaped neck *b*, and the strap C provided with rectangular hole *c* and screw *c'* for the purpose of holding the screw-bolt B relatively stationary with the blade A', as hereinbefore set forth.

IGNATIUS GRASS.

Witnesses:

WM. B. H. HUNT,
JAS. H. EMRICH.