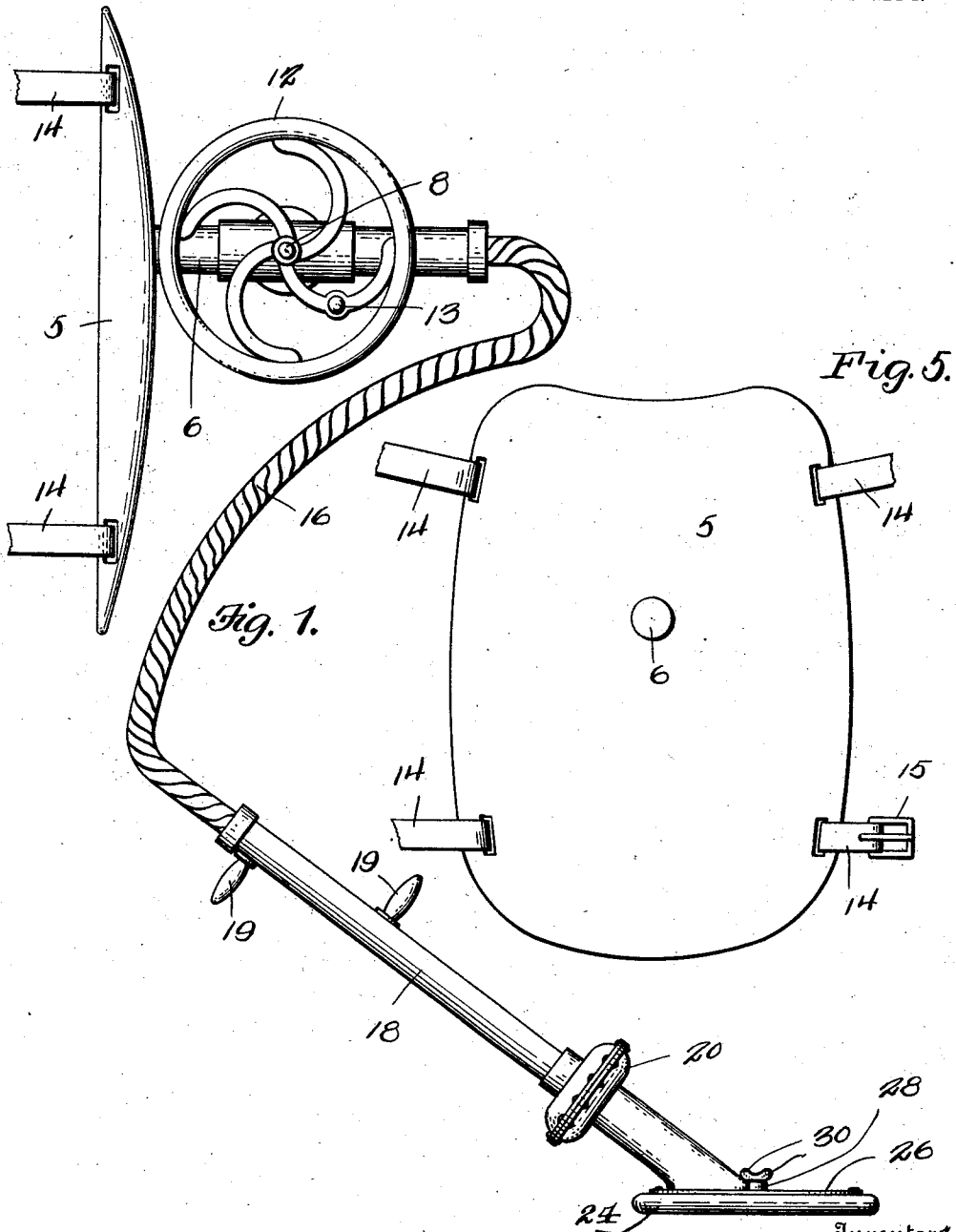


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CANE CUTTER.
APPLICATION FILED SEPT. 22, 1910.

1,021,605.

Patented Mar. 26, 1912.

2 SHEETS-SHEET 1.



Witnesses
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Jerome J. Smiddy

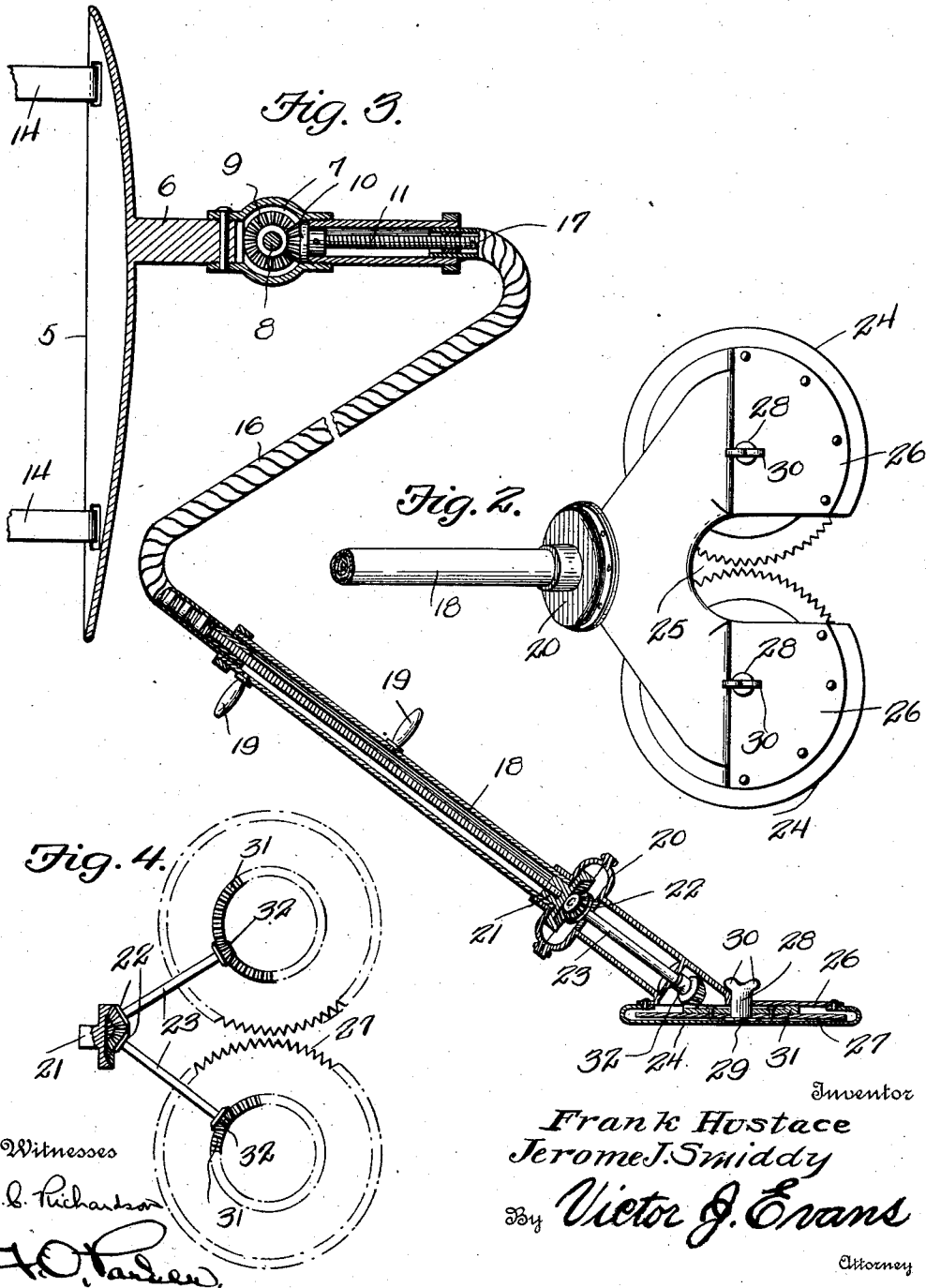
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UNITED STATES PATENT OFFICE.

FRANK HUSTACE AND JEROME J. SMIDDY, OF HONOLULU, TERRITORY OF HAWAII.

CANE-CUTTER.

1,021,605.

Specification of Letters Patent.

Patented Mar. 26, 1912.

Application filed September 22, 1910. Serial No. 583,260.

To all whom it may concern:

Be it known that we, FRANK HUSTACE and JEROME J. SMIDDY, citizens of the United States, residing at Honolulu, in the county of Honolulu and Territory of Hawaii, have invented new and useful Improvements in Cane-Cutters, of which the following is a specification.

The invention relates to a cane cutter, and more particularly to the class of hand operated cane cutting devices.

The primary object of the invention is the provision of a device of this character in which the standing stalks of cane may be severed in a field, the device capable of being strapped to the body of a person, so that the same may be manually operated by such person while walking through a field, or if desired, the device may be supported by one person while the same is being positioned by another person for cutting the cane stalks.

Another object of the invention is the provision of a device of this character in which standing stalks of a growing crop may be severed by means of oppositely rotatable toothed saws, the same being manually operated through the mediums of driving mechanism, the saws being held in a casing that is capable of being positioned by hand with respect to the stalk to be severed, so that the said stalk will be readily and conveniently cut the desired length.

A further object of the invention is the provision of a device of this character in which the rotary cutters may be readily and easily detached from the gear operating mechanism for driving the same, whereby the said cutters may be sharpened or in event that the same have become injured, they may be repaired or replaced by new ones, as the occasion may require.

A still further object of the invention is the provision of a device of this character which is simple of construction, thoroughly reliable and efficient in operation, and inexpensive to manufacture.

With these and other objects in view, the invention consists of the construction, combination and arrangement of parts, as will be more fully hereinafter described, illustrated in the accompanying drawings, and pointed out in the claim hereunto appended.

In the drawings: Figure 1 is a side elevation of a device constructed in accordance

with the invention. Fig. 2 is a fragmentary top plan view thereof. Fig. 3 is a vertical longitudinal sectional view. Fig. 4 is a fragmentary top plan view showing the position of the rotary cutters and the counter-shafts with gearing for operating said cutters, the casing being removed. Fig. 5 is a front elevation of the breast plate.

Similar reference characters indicate corresponding parts throughout the several views of the drawings.

Referring to the drawings by numerals, 5 designates a breast plate which may be of any desirable shape and formed with an outwardly extending stem 6, the same being arranged medially of the said breast plate and being formed with a central bore 7 extending partially the length thereof and opening through its outer end. Journaled transversely in the said stem 6 is a stud axle or shaft 8, the latter intersecting the bore 7 and having fixed thereto a beveled gear 9, the latter meshing with a pinion 10 fixed to one end of a driving shaft 11 suitably journaled within the bore 7 of the stem. The stud axle 8 has fixed to one end a fly wheel 12 provided with an adjustable hand crank 13, whereby the wheel may be rotated. Suitably connected with the breast plate 5 are straps 14, each being provided with the usual buckle 15 to engage with its opposite end whereby the straps 14 may be engaged about the body of a person for mounting the breast plate 5 in position on the body of such person.

Detachably connected with the outer end of the stem 6 is a flexible tube 16, which latter may be of any desirable length and within which is held a flexible rotatable shaft 17, the latter being coextensive with the said tube 16 and suitably connected with the rotatable shaft 11 journaled in the stem 6 on the breast plate. This rotatable flexible shaft 17 is held centrally within the flexible tube 16 in any suitable manner and is adapted to operate cutters, as will be hereinafter more fully described.

Detachably connected with the outer end of the flexible tube 16 is a rigid hand hold tube 18, the same being formed at intervals with hand grips 19, and within this hand hold tube 18 extends the outer end of the flexible shaft 17, the tube 18 being connected with a suitable housing 20 in which is disposed a crown tooth bevel gear 21, the latter

being fixed to the outer end of the flexible shaft 17, and with which meshes one of a pair of meshing pinions 22 fixed to the forwardly diverging rotatable counter-shafts 23, the latter being journaled in a cutting head or casing, as will be hereinafter more fully described. This cutting head or casing comprises a substantially heart-shaped base plate 24 provided with a medially arranged entrance bifurcation or slot 25 opening through the wider end of the said base plate, and detachably engaged with this base plate 24 is a top or closure plate 26, the latter being of substantially the same shape as the said base plate, but of less area than the latter. Arranged between the base and top or closure plates 24 and 26 are spaced opposed circular shaped saw toothed cutters or disks 27, the same being mounted for rotation upon stud journals 28, each being formed with a threaded extremity 29 engaging a similarly threaded aperture in the base plate 24, and at its opposite end with finger wings 30, the journals 28 being passed upwardly through suitable openings in the top or closure plate 26, and being readily detachable whereby the cutters or disks 27 may be removed when desired from the casing.

Formed on the upper faces of the cutters or disks 27 are crown teeth 31 meshing with bevel pinions 32 secured to the forward ends of forwardly diverging counter-shafts 23, the same being provided at their inner ends with meshing pinions 22, one of which also meshes with the crown gear 21 so that on rotating the fly wheel 12, the cutters 27 will be caused to rotate in opposite directions to each other, whereby on the entrance of a cane stalk within the entrance slot 25 of the

casing, the cutters 27 will sever the said stalk from the ground.

When it is desired to use the device, the breast plate 5 is strapped to the body of a person, then a second person grasps the hand grips 19 on the hand hold tube 18 bringing the cutter head in position so that a standing stalk will engage in the entrance slot 25 in the said casing or head, whereupon the fly wheel 12 is rotated by the person on whom the breast plate is mounted, so that the saw cutters 27 will rotate, thereby severing the standing stalk. This operation is repeated until the required number of stalks has been cut for thinning out a crop of sugar-cane.

What is claimed is:—

In a manually operated cane cutter, a breast plate, means for connecting the breast plate to the body of a person, a hollow flat head having a medial slot opening through its front edge, opposed cutting devices journaled within the head and intersecting said slot, a stem rising from said head and having a flared end connected with the head, connections between the stem and the said breast plate, a rotatable gear mounted within the stem, gear teeth formed on the cutting devices, and forwardly diverging driven shafts having pinion ends meshing with the rotary gear and the said gear teeth on the cutting devices, respectively.

In testimony whereof we affix our signatures in presence of two witnesses.

FRANK HUSTACE.
JEROME J. SMIDDY.

Witnesses:

H. A. CLARK,
W. H. SHERLOCK.