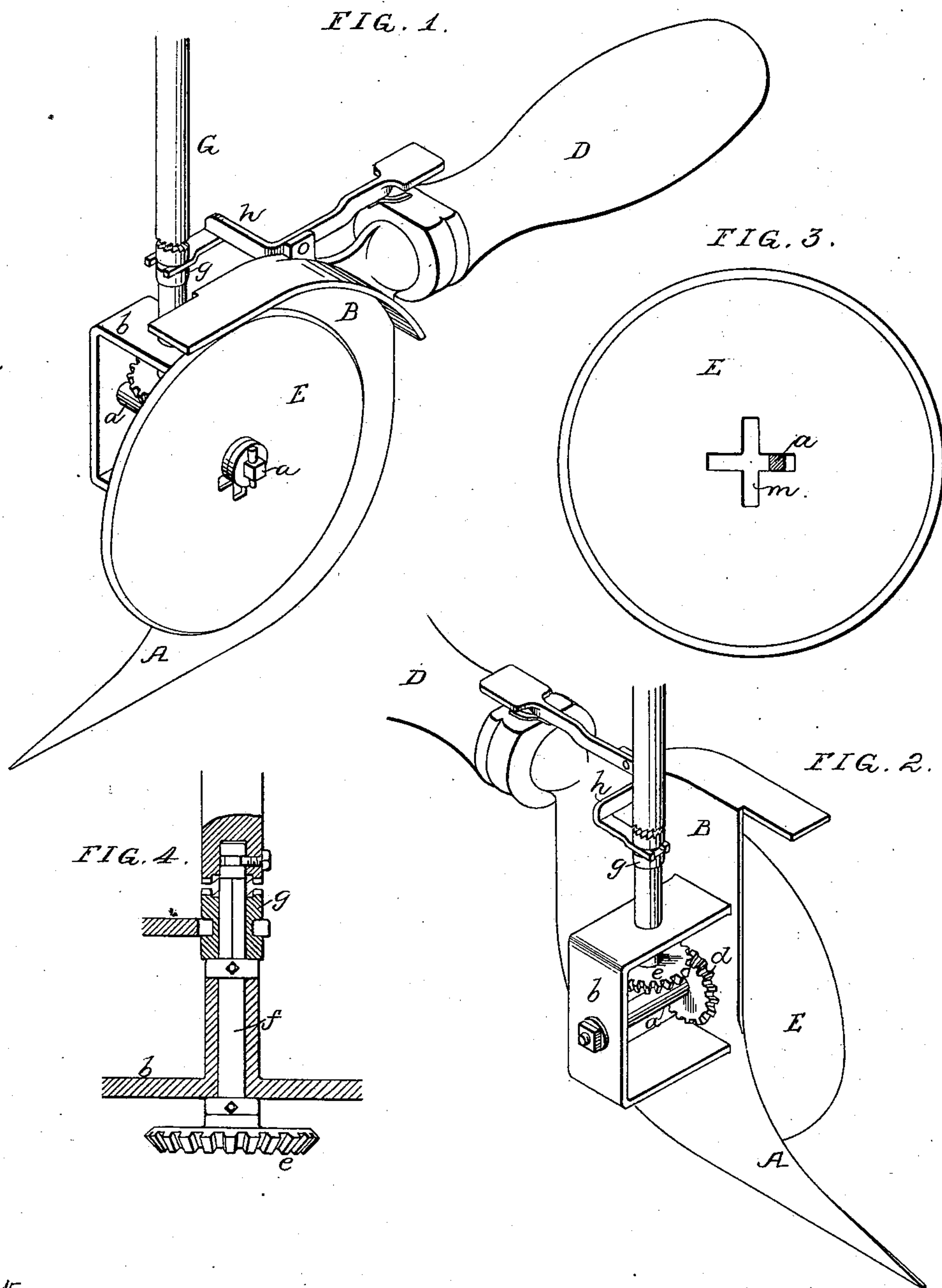


(No Model.)

W. R. FOWLER.
Shearing Device.

No. 243,367.

Patented June 28, 1881.



WITNESSES:
James F. Tobin.
Henry Houston Jr.

INVENTOR:
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UNITED STATES PATENT OFFICE.

WILLIAM R. FOWLER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
MARTIN J. MYERS, OF SAME PLACE.

SHEARING DEVICE.

SPECIFICATION forming part of Letters Patent No. 243,367, dated June 28, 1881.

Application filed October 18, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. FOWLER, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain
5 Improvements in Shears, of which the following is a specification.

My invention relates to certain improvements in that class of shears in which a stationary cutting-blade is combined with a rotating cutting-blade, the main objects of my
10 improvements being to increase the effectiveness of shears of this class, and to adapt the same for convenient manipulation, and for being operated by power. These objects I attain in
15 the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a pair of shears made according to my invention; Fig.
20 2, a perspective view of the rear of the same; Fig. 3, a detached view of the rotary shear-blade, and Fig. 4 an enlarged view of a portion of the shears.

A is the fixed blade of the shears, which is
25 pointed and tapered as usual, and which is secured to or may form part of a plate, B, the latter being provided with a handle, D, whereby it may be readily manipulated.

E is the rotating shear-blade, said blade
30 being carried by a shaft, *a*, adapted to bearings in the plate B, and in a yoke, *b*, at the rear of the same, said shaft being furnished with a bevel-wheel, *d*, which gears into a similar wheel, *e*, on a vertical spindle, *f*, adapted
35 to a bearing in the yoke *b*. The spindle *f* is driven from any adjacent source of power through the medium of the transmitting-shaft G, the latter not being connected directly to the spindle *f*, however, but being clutched to
40 or released therefrom by means of the clutch-sleeve *g*, operated by a lever, *h*, the latter being acted upon by a spring, which, in the absence of pressure on the lever, tends to depress the sleeve *g* and release the spindle *f* from the
45 shaft G. This clutch provides for the convenient stoppage of the cutting operation, when desired, without the necessity of stopping the movement of the transmitting device, the cutter being thereby stopped and started more
50 readily than in the absence of the clutch.

The shear-blade E is hung eccentrically, so

that as the shaft *a* is rotated and the blade turns on its axis the cutting-edge of said blade will have a vertical movement in respect to the cutting-edge of the blade A, and a much more
55 effective action of said blade E will be insured than if the blade had simply a rotating movement on an axis concentric with the cutting-edge.

The blade E is slotted for the reception of
60 the shaft *a*, which may be adjusted to any desired position in the slot. By this means the extent of eccentricity of the blade E may be varied and said blade shifted circumferentially, so as to bring a new portion of its cut-
65 ting-edge into use when one portion becomes worn.

Suitable means should be provided for securing the slotted blade E to the shaft *a* in the different positions to which it is adjusted;
70 or, in place of the slot *m*, a series of openings adapted for the reception of the shaft may be employed, and means for effecting the vertical adjustment of the blade E with the yoke *b* and the driving-gears, to compensate for the
75 effects of wear, either on the blade E or the blade A, may be adopted in some cases.

I have shown the blade E adapted to be driven by power; but, if desired, the power driving devices may be dispensed with and
80 the blade E driven by hand. The arrangement shown, however, will be employed in most instances.

I claim as my invention—

1. The combination of the fixed blade A of
85 the shears with the shear-blade E, hung eccentrically and capable of rotation, whereby, as the blade is turned on its axis, the cutting-edge of said blade is caused to move vertically in respect to the fixed blade, as set forth. 90

2. The combination of the fixed blade A with the rotating shear-blade E, slotted or provided with openings for the reception of the driving-shaft, whereby the axis of the said shear-blade may be shifted, as set forth. 95

3. The combination of the fixed blade A, the shear-blade E, the plate B, having a handle, D, the transmitting-shaft G, and devices carried by said plate B, and serving to convey the movement of the shaft G to the shear-
100 blade E, as set forth.

4. The combination of the plate B, having

a handle, D, and carrying the cutting mechanism and operating-gearing therefor, the power-transmitting shaft G, and means, substantially as described, whereby the spindle
5 of the cutter-gearing may be clutched to or released from the shaft G, as set forth.

In testimony whereof I have signed my name

to this specification in the presence of two subscribing witnesses.

WM. R. FOWLER.

Witnesses:

JAMES F. TOBIN,
HARRY SMITH.