

Dec. 6, 1932.

B. F. GRAVELY
LAWN MOWER DEVICE

1,889,830

Filed Feb. 6, 1932

2 Sheets-Sheet 1

Fig. 6.

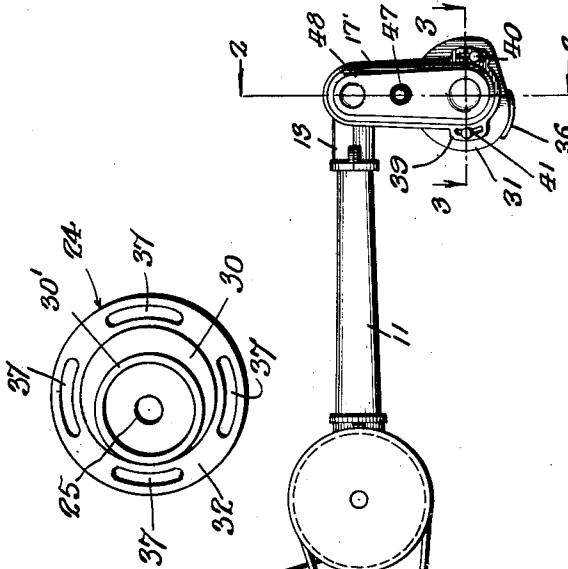


Fig. 1.

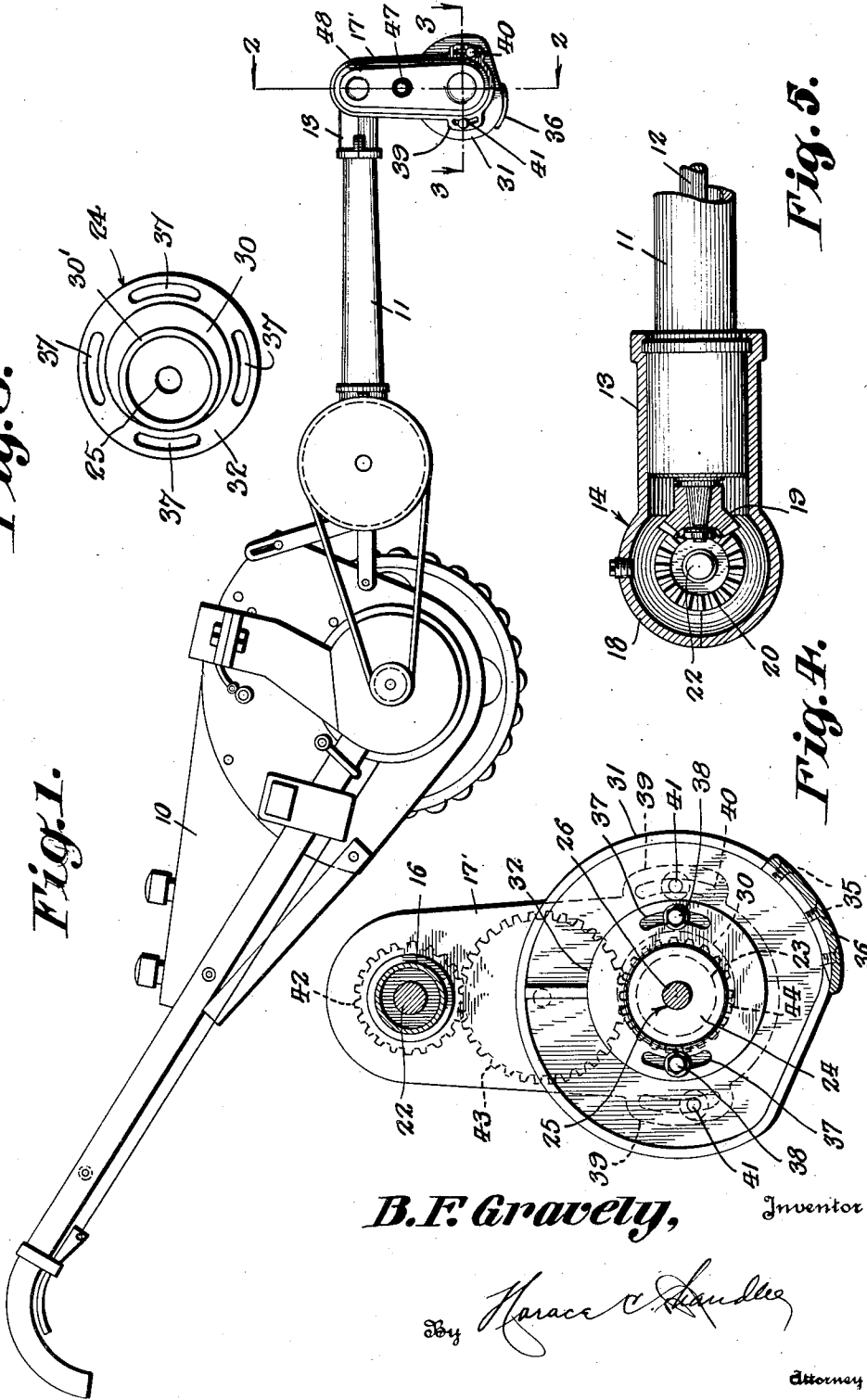


Fig. 5.

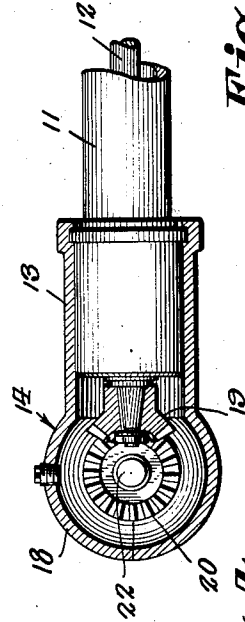
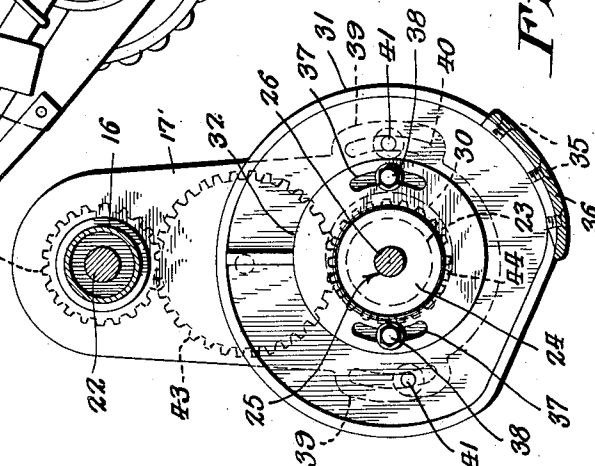


Fig. 4.



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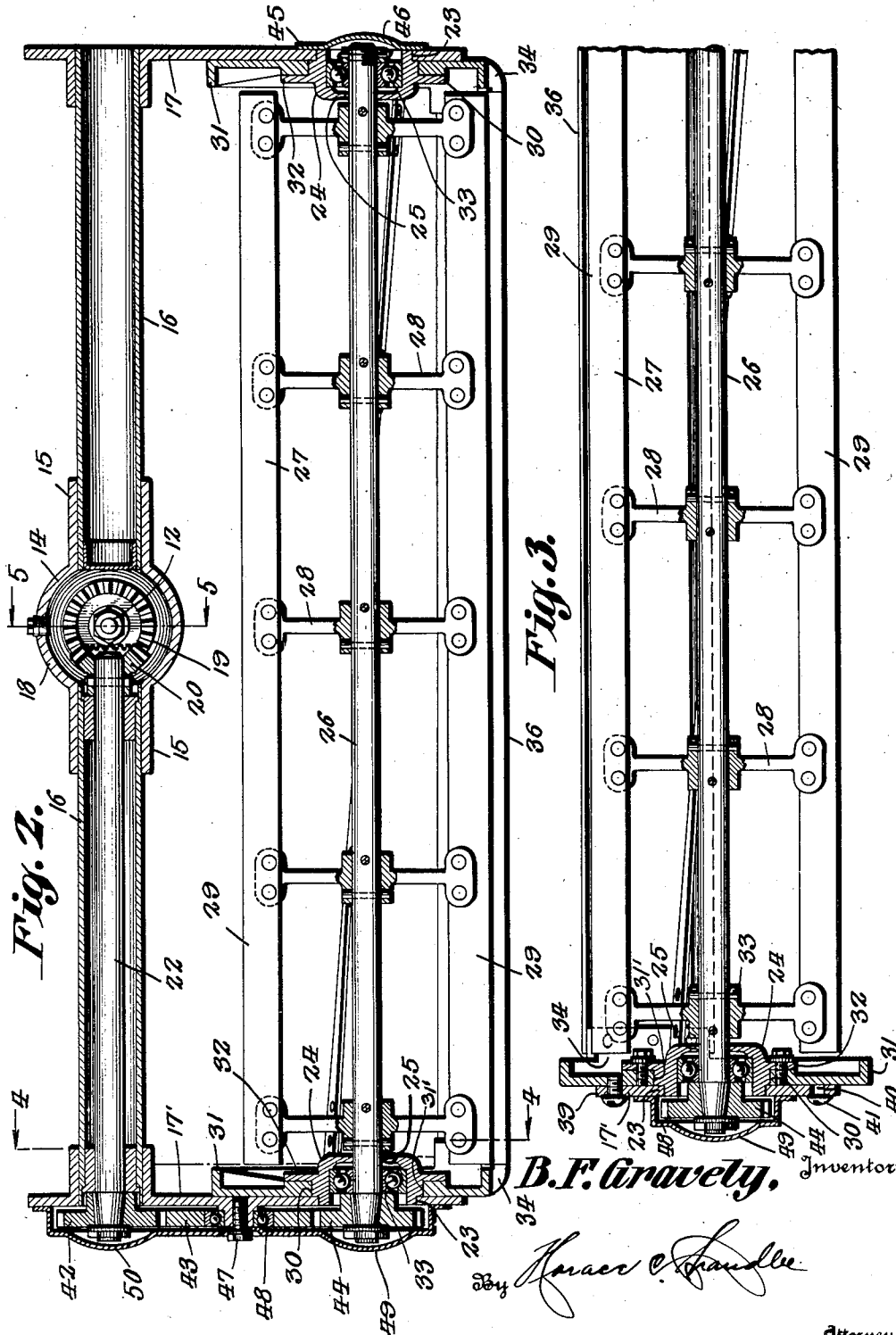
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2 Sheets-Sheet 2



UNITED STATES PATENT OFFICE

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LAWNMOWER DEVICE

Application filed February 6, 1932. Serial No. 591,418.

This invention relates to new and useful improvements in mowing devices, and particularly to a lawn-mowing attachment for use in connection with tractors, the same being especially adapted for use in connection with the tractor shown in my pending application, filed April 22, 1929, Ser. No. 357,140.

One object of the invention is to provide a lawn-mower device including novel means for adjusting the parts whereby to cause the device to cut the grass to greater or lesser degrees.

Another object is to provide a device of this character which includes novel means for adjusting the cutting reel toward and away from the stationary knife blade.

Other objects and advantages will be apparent from the following description when taken in connection with the accompanying drawings.

In the drawings:

Figure 1 is a side elevation of the invention applied to my tractor.

Figure 2 is a vertical sectional view on the line 2—2 of Figure 1, enlarged.

Figure 3 is a horizontal sectional view on the line 3—3 of Figure 1.

Figure 4 is a vertical sectional view on the line 4—4 of Figure 2.

Figure 5 is a vertical sectional view on the line 5—5 of Figure 2.

Figure 6 is a view of the flanged face of one of the members 24.

Referring particularly to the accompanying drawings 10 represents the tractor, with which the invention is adapted to be used, said tractor having a forwardly tapering tubular member 11 connected to the front thereof, and extending forwardly therefrom. In this member 11 is a longitudinally extending shaft 12, operated by the tractor, and adapted, at its front end to operate the mower, as will be explained later herein.

Secured on the forward end of the tubular member or casing 11, by means of the branch 13, is an approximately T-shaped casing 14, the same having two oppositely extending lateral branches 15, in which are received the inner ends of the tubular casing 16, said casings having their outer ends connected with

the upper ends of the two end frames 17, 17', of the mowing device. The intermediate portion of the casing 14 is approximately spherical, as indicated at 18, within which is journaled the forward end of the drive shaft 12, said shaft end carrying a bevel gear 19. This gear 19 meshes with a similar gear 20, on the adjacent end of a shaft 22, rotatably supported in one of the casings 16. To distinguish the two end frames 17, one from the other, one of said frames is designated by the numeral 17'.

In the lower portion of each of the end frames 17 and 17' is a circular opening 23, which receives the reduced portion 30', of the circular flange 30, formed on the concave side of a concavo-convex member 24, said flange being eccentric with respect to the center of the member, as clearly seen in Figure 6. In the member 24, concentric with respect to the reduced portion 30', of the flange 30, is an opening 25, which receives an end of the shaft 26, said shaft forming the axis of the rotary cutting reel 27. This reel also includes the radial arms 28, on which are mounted the longitudinally extending knives 29. It will be noted that these members 24 are applied to the end frames from the inner sides thereof. A disk 31 is provided with an opening 31', in which is rotatably engaged the main body 30 of the flange. Each member 24 is also provided with a peripheral flange 32, which overlies the central portion of the disk 31, to hold the latter in frictional contact with the inner face of the side frame. Antifriction bearings 33 are mounted in each of the members 24, in surrounding relation to the end of the reel shaft, as clearly seen in the sectional views, Figures 2 and 3. Formed on the lower side of each of the end disks 31, is an inwardly directed, horizontal lug 34, and secured to these lugs, by the screws 35, and extending between said disks, in position to be engaged by the rotary knives 29, is the stationary knife 36, of the mower.

In diametrically opposite points in the flange 32 of each member 24 are formed the arcuate slots 37, the same being concentric with respect to the flange 30. Disposed through each of the slots, and engaged in