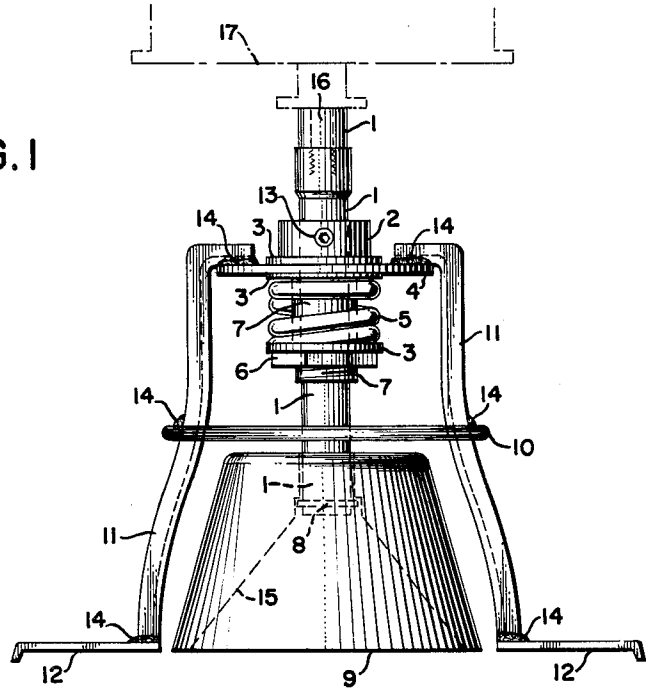
Aug. 4, 1964 H. N. DRANE, JR 3,143,176

SPRINKLER HEAD, GRASS TRIMMING ADAPTER

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FIG. 1



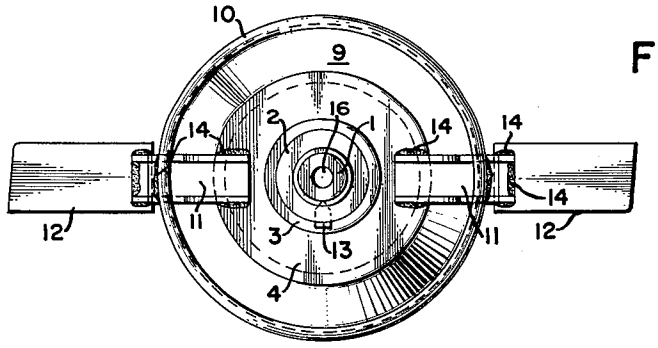


FIG. 2

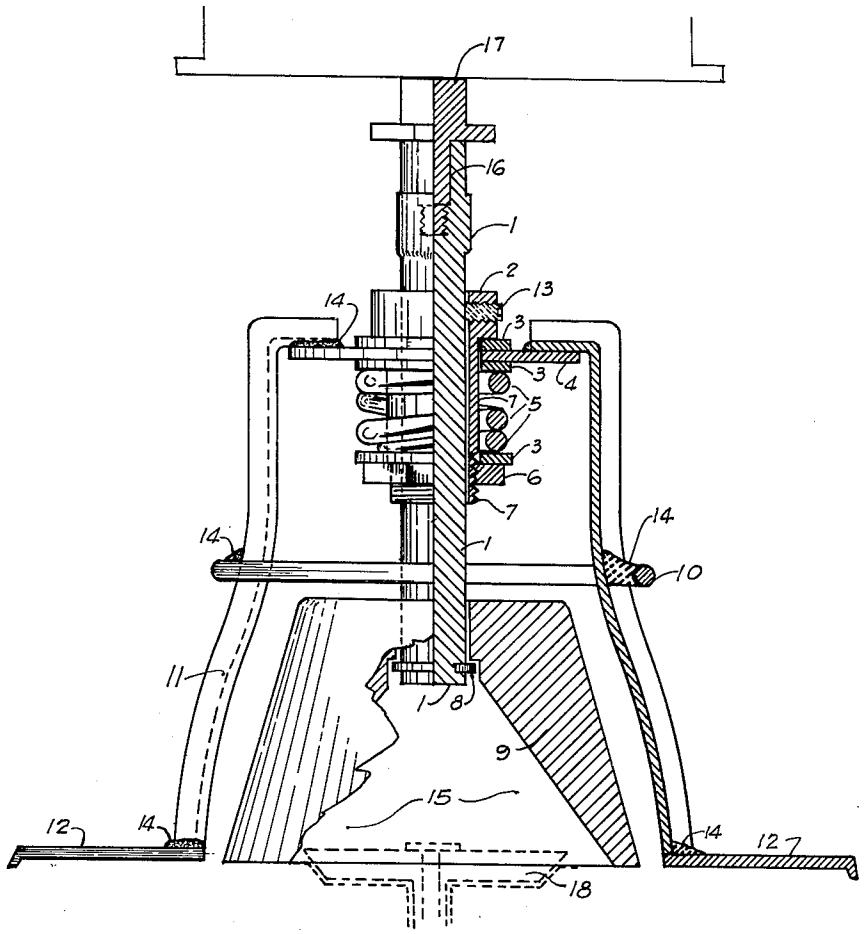
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• FIG. 3 •

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SPRINKLER HEAD, GRASS TRIMMING ADAPTER

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1 Claim. (Cl. 172—13)

This invention relates to a device for cutting the grass adjacent to a sprinkler head. A further object is to provide means for centering the device with respect to the sprinkler head. Another object of the invention is to provide an adapter that can be connected to an ordinary grass cutting power source.

With these and other objects in view as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions as will be hereinafter described in detail, reference being had to the drawings, in which:

FIGURE 1 is a side elevation of the trimmer; FIGURE 2 is a top plan view; and FIGURE 3 is a side elevation, partly in section.

Similar characters of reference refer to similar parts and portions throughout the several views of the drawings.

Referring to FIGURE 1, the trimming device is shown as comprising a drive shaft 1 having an upper end and a lower end. The upper end of the shaft is coupled to a shaft 17 by means of an internal threaded connection in bore 16. The shaft 17 is driven by means of a conventional electric or gasoline driven power source. A lock ring 2 is slidably fitted over an intermediate portion of shaft 1 and is adjustably fixed thereto by means of a set screw 13. The bottom portion of the lock ring 2 is threaded 7 to accommodate a lock nut 6. As seen in FIGURE 1, the lock ring 2 has an annular shoulder adjacent its upper end. Between this raised annular shoulder and the lock nut 6 there is positioned a clutch comprising, washers 3 and a spring 5. An annular support disc 4 surrounds said lock ring 2 and is urged towards the annular shoulder by said spring 5. The washers 13 are positioned above and below said spring and a third washer is positioned between the support disc 4 and the annular shoulder. Thus a friction drive occurs between shaft 1 and support disc 4. This drive can be interrupted by an overload as will be described hereinafter.

The trimming blades 12 are horizontally arranged and are affixed, as by welds 14, to blade supports 11. The blade supports are welded to support disc 4 in a substantially diametrically opposed relationship. An annular skirt ring 10 surrounds the blade supports 11 and is welded 14 thereto.

As shown in FIGURE 3, a bell shaped guard 9 is rotatably fitted over the lower portion of shaft 1. Keeper ring 8 on shaft 1 prevents the guard from sliding off the shaft. The conical opening 15 allows the guard to accommodate sprinklers of various sizes.

In operation, the guard 9 is placed over a sprinkler head 18 and the driven shaft 1 is rotated by means of the power source and simultaneously forced downward so that blades 12 cut the adjacent grass and sod. When an obstruction, such as a rock, is encountered by the blade 12, the friction drive is interrupted and thus the power source is protected.

The depth of cut can be adjusted by sliding lock ring 2 on shaft 1 and locking the ring in adjusted position by means of set screw 13.

I claim:

In a trimming device for sprinkler heads, a shaft having an upper driving end and a lower end, a bell-shaped guard rotatably mounted on the lower end of said shaft, said guard having a lower conical opening outwardly diverging at the lower end, a lock ring adjustably secured to an intermediate portion of said shaft, said ring having a fixed annular shoulder, a rotatable support disc on said shaft, a pair of spaced friction washers disposed on opposite sides of said disc, said disc and washers being positioned to abut said fixed shoulder, adjustable means yieldingly urging said disc and washers into frictional driving engagement with said fixed shoulder, blade supports secured to said disc and having outwardly projecting blades at their lower ends, said blades and the lower end of said guard being substantially coplanar.

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