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F. J. BUSHARD.
SUPPORT FOR CLOTHES LINE REELS.
APPLICATION FILED FEB. 10, 1905.

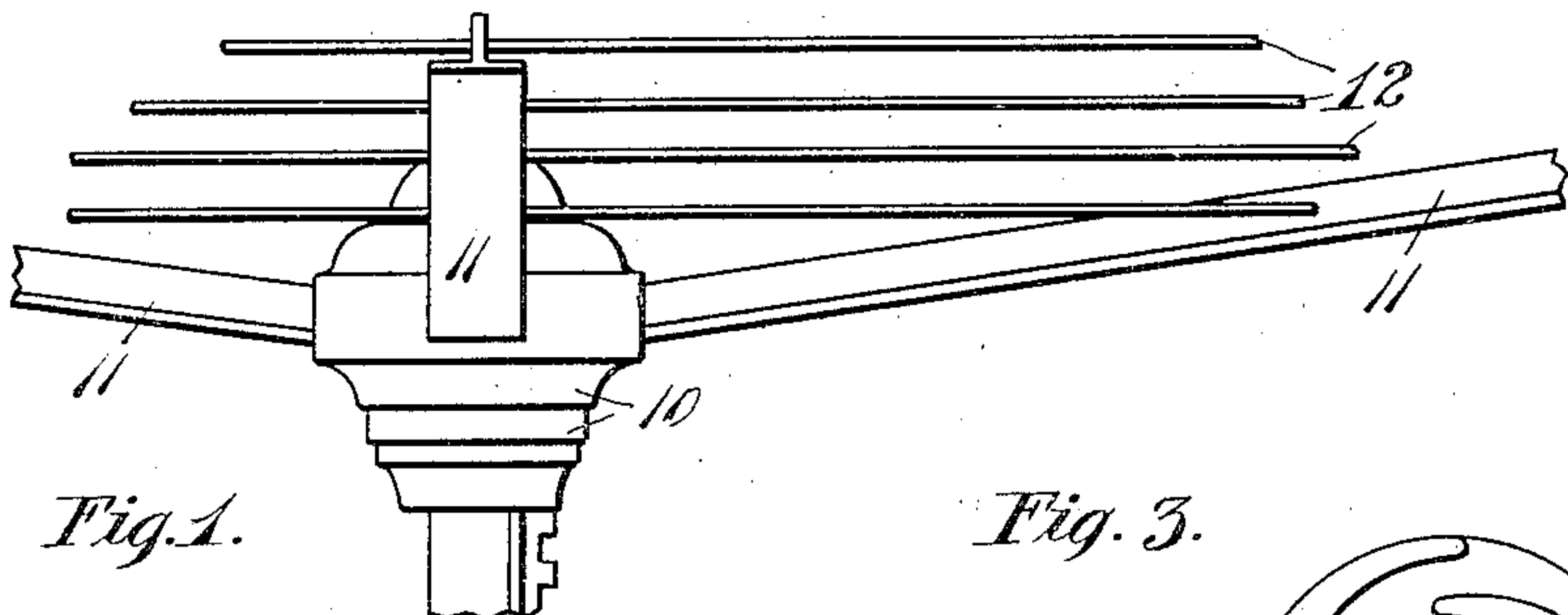


Fig. 1.

Fig. 3.

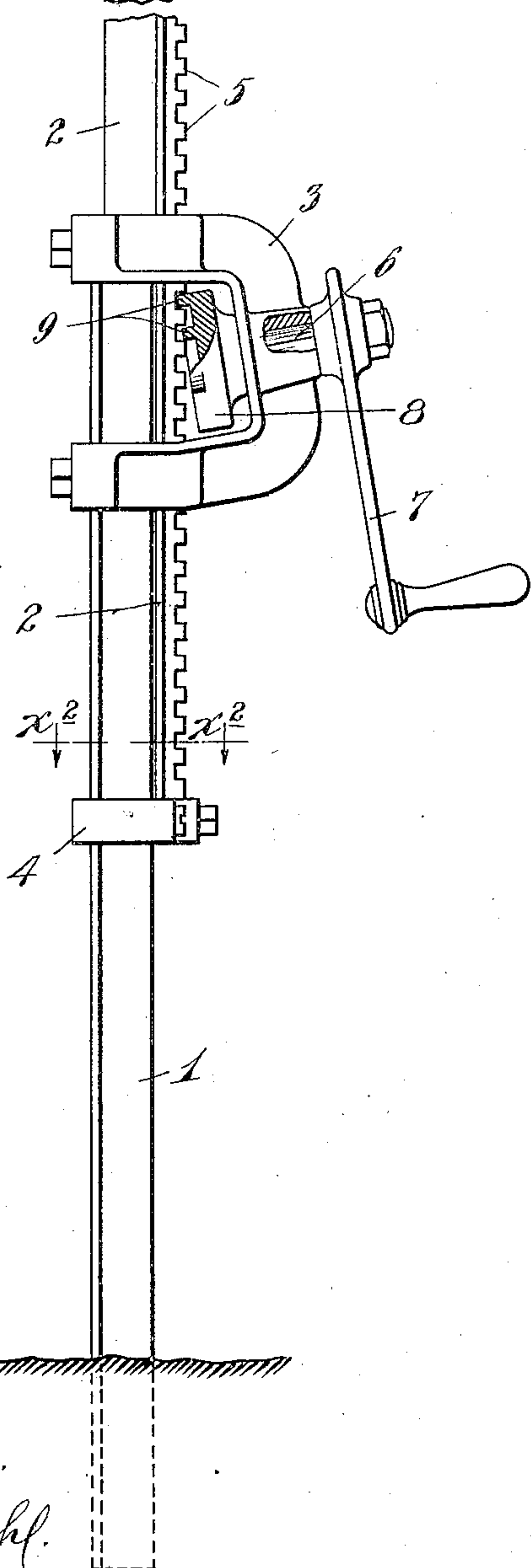
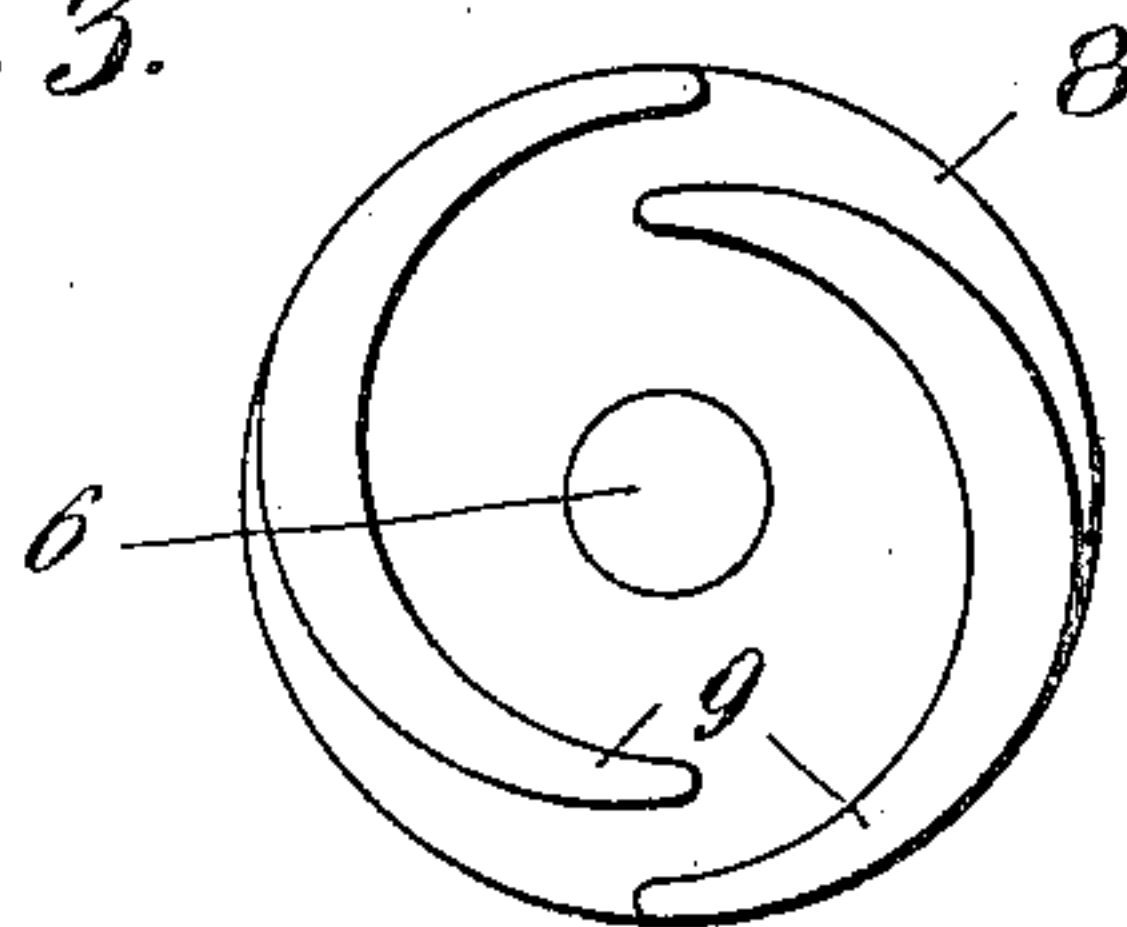
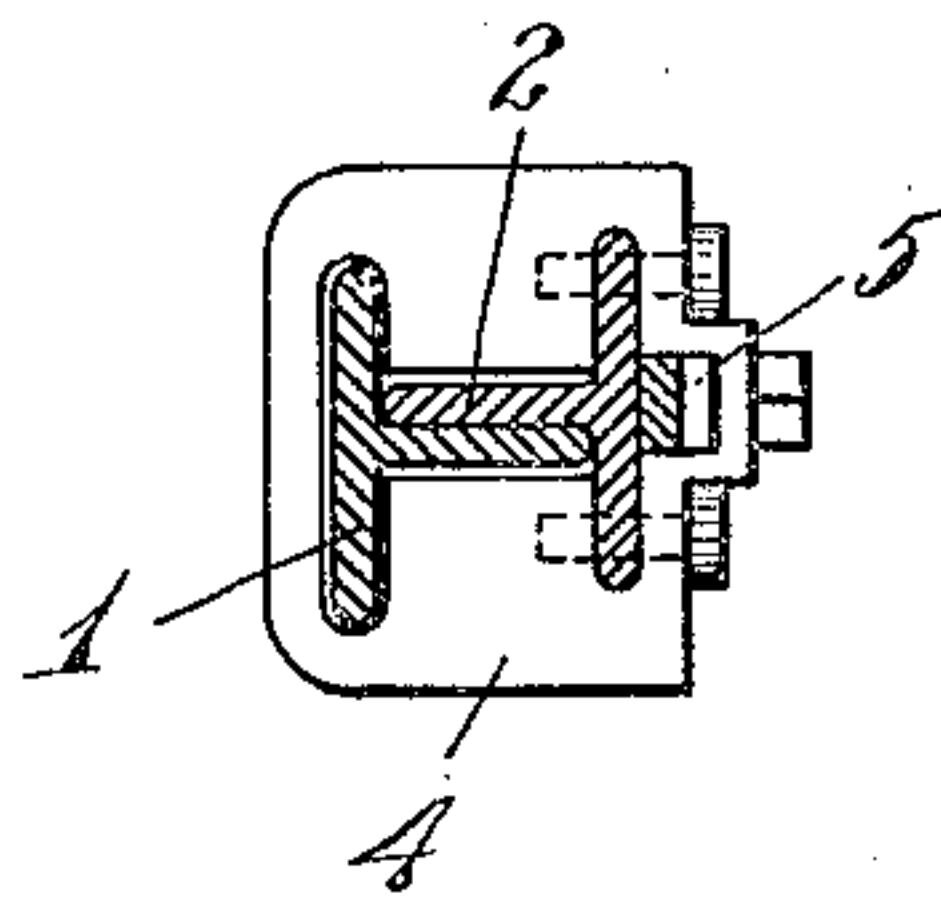


Fig. 2.



Witnesses:

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SUPPORT FOR CLOTHES-LINE REELS.

No. 836,959.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed February 10, 1905. Serial No. 245,002.

To all whom it may concern:

Be it known that I, FRED J. BUSHARD, a citizen of the United States, residing at Winthrop, in the county of Sibley and State of Minnesota, have invented certain new and useful Improvements in Supports for Clothes-Line Reels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to adjustable supports for clothes-drying reels, and has for its object to improve the same in point of simplicity, durability, cost, and general efficiency.

To the above ends the invention consists of the novel devices and combinations of devices hereinafter described, and defined in the claims.

In the accompanying drawings, which illustrate my invention, like characters indicate like parts throughout the several views.

Figure 1 is a view in side elevation, showing the improved reel with some parts broken away and with others sectioned. Fig. 2 is a detail in section on the line $x^2 x^2$ of Fig. 1, and Fig. 3 is an elevation showing in detail the profile worm for raising and lowering the head of the reel.

The numeral 1 indicates the lower or ground section, and the numeral 2 the upper or relatively movable section, of a vertically-adjustable standard, which two parts are preferably constructed of what is known as "T-iron," the two sections being set, as best shown in Fig. 2, with their central flanges overlapped. The lower end of the section 1 is inserted the desired distance into the ground, and to the upper end thereof is rigidly secured a bearing-yoke or U-shaped casting 3, through which the movable section 2 slides freely and by which it is guided. To the lower end of the movable bar-section 2 is rigidly secured a guide-block 4, having a passage that closely but loosely fits the cross-section of the bar 1, thereby permitting free vertical movements of the said bar 2 and at the same time maintaining it always in a vertical position. A long rack 5 is rigidly secured to the outer face of the bar-section 2 and moves vertically therewith.

A short shaft 6 is loosely journaled in the bearing-yoke 3 and is set at a slightly oblique angle to the rack 5. At its outer end said shaft 6 is provided with a hand-crank 7, and to the inner end thereof is rigidly secured the head 8 of a profile worm having eccentrically-set spiral cam-flanges or thread-sections 9. As shown in Fig. 1, this profile worm is so set that its cam-flanges 9 engage the teeth of the rack 5 at their upper portions. This said profile worm being set in this position, the weight on the rack 5 takes up the slack and wear and tends to tilt the said worm into engagement with said rack.

To the upper end of the adjustable bar 2 is loosely journaled a reel-hub 10. The radial arms 11 of the reel-head are also preferably formed of T-iron and their inner ends are cast into the hub 10. The numeral 12 indicates the clothes-supporting line or wire, which is run through the upturned flanges of the arms 11.

The use of the profile worm in lieu of an ordinary cylindrical worm greatly simplifies the device and reduces the cost thereof. The operating-crank, as is evident, should be arranged to rotate in an approximately vertical plane, and to accomplish this with a cylindrical worm would require the use of bevel-gears and coöperating shafts and bearings.

The device described is preferably constructed of steel or iron. It is of comparatively small cost and is very durable. Furthermore, the device may be very easily and quickly operated.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. The combination with a vertically-adjustable standard made up of the two T-bars 1, with their central flanges overlapped, and provided with means for holding the movable bar for straight-line sliding movements on the fixed bar, of a rack carried by said movable bar, a bearing on said fixed bar, and a worm meshing with said rack, mounted in said bearing, and provided with a crank for turning it, substantially as described.

2. The combination with the T-bars 1 and 2, set with their central flanges overlapped, of the rack 5 applied to said bar 2, the bearing-yoke 3 rigidly secured to said bar 1 and guiding said bar 2, the guide-block 4 on the

lower end of said bar 2 loosely embracing
said bar 1, the shaft 6 obliquely journaled in
said yoke 3, the crank 7 applied to the outer
end of said shaft, and the profile worm 8 car-
5 ried by the inner end of said shaft and having
the eccentric cam-flanges 9 engageable with
said rack 5, substantially as described.

In testimony whereof I affix my signature
in presence of two witnesses.

FRED J. BUSHARD.

Witnesses:

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