H. A. RIPPE.

WORM GEARING.

APPLICATION FILED FEB. 1, 1921.

1,381,337. **Patented June 14, 1921.**

Fig. 1

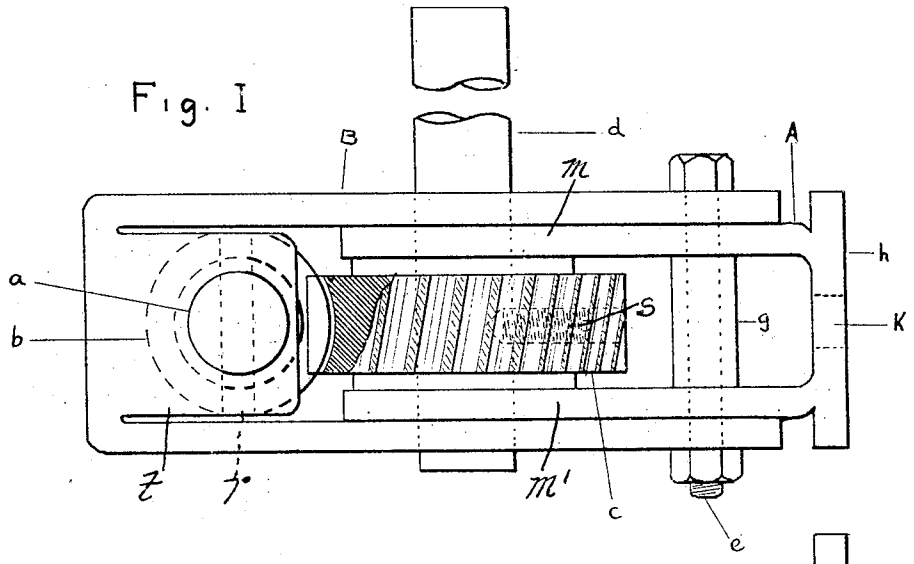
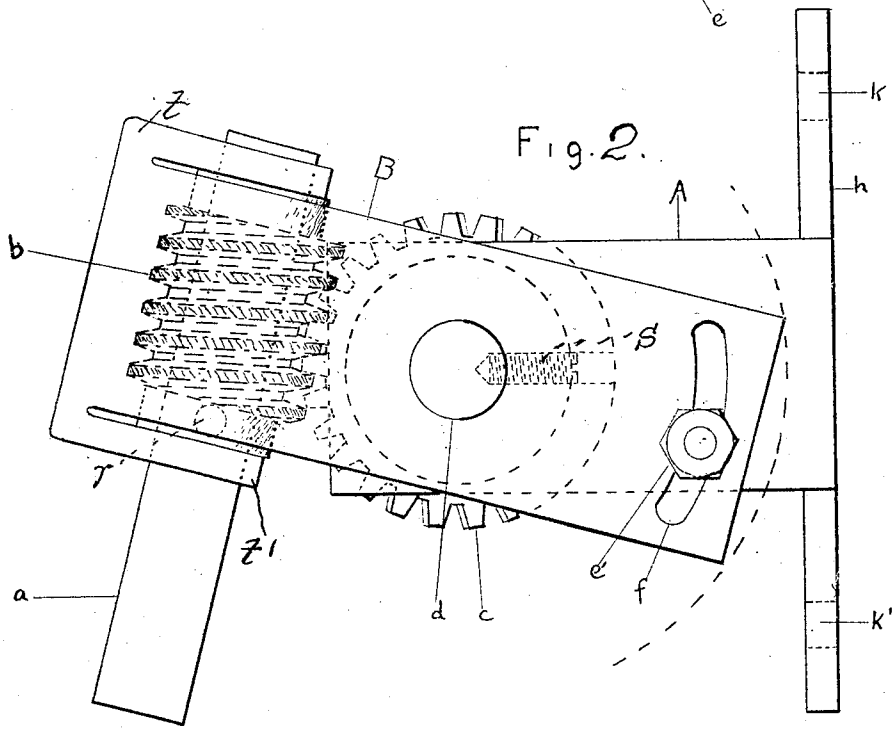


Fig. 2.



WITNESS

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HENRY A. RIPPE, OF SALT LAKE CITY, UTAH.

WORM-GEARING.

1,381,337. Specification of Letters Patent. **Patented June 14, 1921.**

Application filed February 1, 1921. Serial No. 441,654.

To all whom it may concern:

Be it known that I, HENRY A. RIPPE, a citizen of the United States, residing at 660 East 21st South street, Salt Lake City, in the county of Salt Lake and State of Utah, have invented a new and useful Improvement in Worm-Gearing, of which the following is a specification, reference being had to the accompanying drawing, forming a part hereof.

This invention relates to winding devices for the type of awning which is operated by means of a roller at the top. Such rollers are sometimes mounted on brackets projecting from a flat-formed building, and sometimes are mounted in recesses formed in the front of the building to house the awning when rolled up. An important purpose of the invention is to provide a roll winding and supporting fixture in which the operating shaft is angularly adjustable so that the same fitting may be mounted in either of the two ways above suggested and be so adjusted that the operating shaft is accessible and properly directed. Another object is to secure an adjustable winding device of this type, which is irreversible and hence self-locking.

A practical embodiment of the invention is illustrated in the accompanying drawing, in which,—

Figure 1 is a top view of the device as it would appear adjusted to bring the operating shaft vertical.

Fig. 2 is a side elevation showing the device adjusted to direct the operating shaft away from the building front.

The same reference letters refer to the same parts in both figures.

The bracket frame member is shown at A, and is capable of attachment to the building by a base *h* provided with bolt-holes *k k'*. The base *h* carries two supporting members *m m'* spaced apart, as shown and formed with alined bearings which receive the awning roll shaft *d*. A worm wheel *c* is fixed in the shaft *d* by means of a set screw *s*, and being confined between the members *m m'* confines the shaft *d* against longitudinal movement.

A bifurcated frame B straddles and closely confines the supporting members *m m'* and is formed with bearings which turn on awning roll shaft *d*. This frame is thus angularly adjustable with reference to bracket frame member A. It is fixed in adjusted positions by a bolt *e* and nut *e'* the bolt passing through alined holes in the members *m m'* and the curved slots *f* in frame B. A distance piece or sleeve *g* surrounding bolt *e* receives the pull of the bolt *e* and prevents cramping or deformation of the device.

The frame B is further provided with ears or lugs *t t'* shorter than the main side arms of frame B. These lugs *t t'* have alined bearings that receive the operating shaft *a*. A worm *b* is confined between lugs *t t'* and is fixed to shaft *a* by means of a rivet *r*. The worm *b* meshes with worm wheel *c* and consequently the shaft *d* may be rotated by turning shaft *a*. The pitch of the worm and wheel are such that shaft *b* can never drive shaft *a* so that the drive is self-locking or irreversible.

The adjustability of frame B allows shaft *a* to be set at such an angle as to be accessible for turning by a winding rod or device. Such winding rod may assume various forms common in the art and may connect with shaft *a* in various known ways, so that I deem it unnecessary to illustrate these details.

What is claimed is:—

1. In an awning fixture, the combination of a supporting bracket; a winding shaft journaled therein; a worm wheel fast to said shaft; a frame mounted to swing about the axis of said shaft; means for clamping said frame to said bracket in different angular adjustments; a worm rotatably mounted in said frame and meshing with said worm wheel; and a connection for rotating said worm.

2. In an awning fixture, the combination of a winding shaft; a bracket and an adjustable frame formed with alined bearings which receive said shaft, whereby said frame is hinged to said bracket by said shaft; a clamp serving to fix said frame adjustably to said bracket; a worm wheel on said shaft; a worm meshing therewith and journaled in said bracket; and means for turning said worm.

3. In an awning fixture, the combination of a bracket including parallel spaced supporting arms formed with shaft bearings; a frame including two side members formed with bearings adapted to aline with the bearings in the bracket; a winding shaft extending through said alined bearings; a worm wheel fast on said shaft between said

supporting arms; a worm journaled in said frame and meshing with said worm wheel; and means for rotating said worm.

4. In an awning fixture, the combination of a bracket including a base plate and spaced supporting arms provided with alined shaft bearings; a frame including two pairs of spaced arms, each pair being provided with alined shaft bearings and one pair being longer than the other, the supporting arms of the bracket and the longer pair of spaced arms of the frame overlapping each other so that their respective bearings aline with each other; a winding shaft extending through the said alined bearings; a worm wheel fast on said shaft and confined between said supporting arms; a second shaft mounted in the bearings in the shorter pair of spaced arms of the frame; a worm fast on said second shaft, confined between said shorter arms and meshing with said worm wheel; and means for clamping said bracket and frame together in relatively adjusted positions.

In testimony whereof I have signed my name to this sepcification in the presence of two witnesses.

HENRY A. RIPPE.

Witnesses:
JOHN W. ENSIGN,
C. F. CATE.