Sept. 11, 1928. 1,683,903

S. KIRSCHBERG

ADJUSTABLE AWNING FIXTURE

Filed Feb. 9, 1927

Fig. 1.

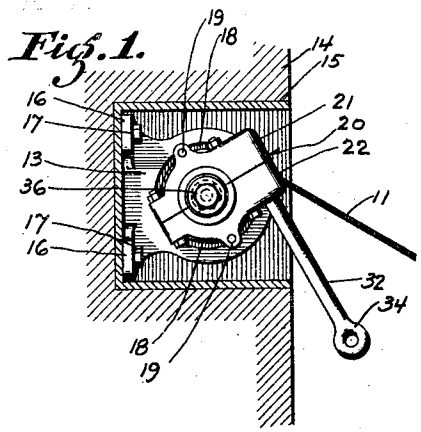


Fig. 2.

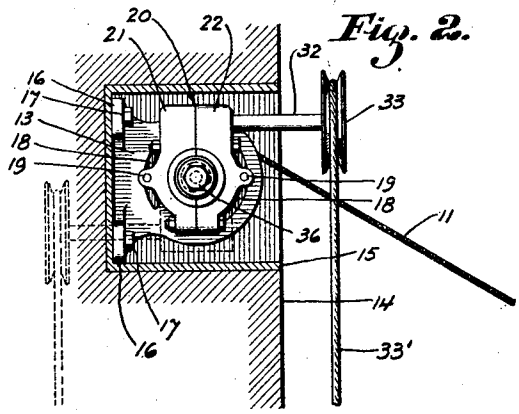


Fig. 3.

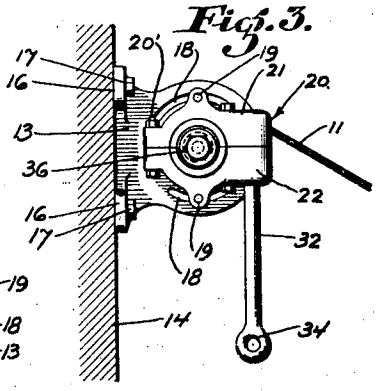


Fig. 6.



Fig. 5.



Fig. 8.

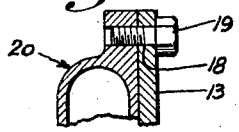


Fig. 7.

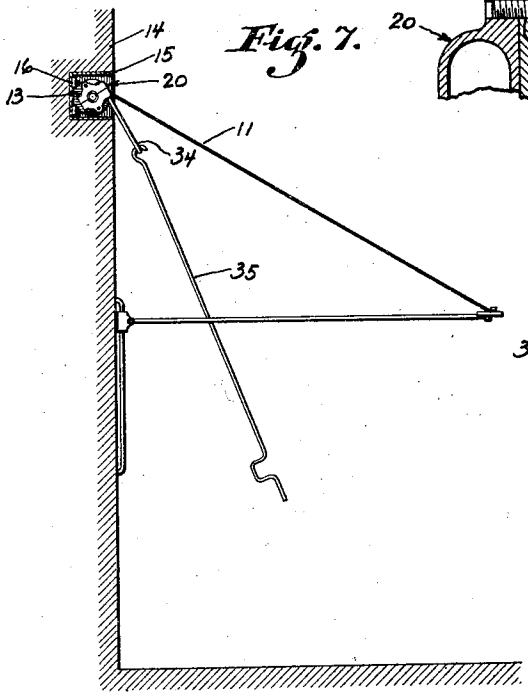
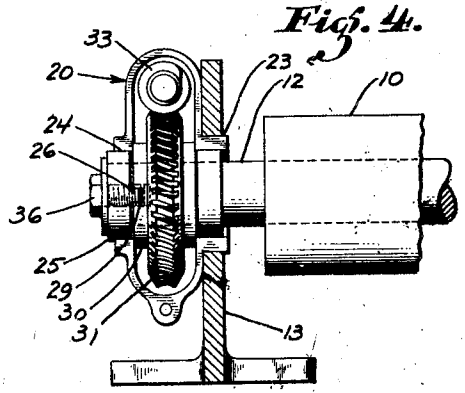


Fig. 4.



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UNITED STATES PATENT OFFICE.

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ADJUSTABLE AWNING FIXTURE.

Application filed February 9, 1927. Serial No. 166,934.

This invention relates to an adjustable lixture for awnings.

In the installation and operation of awnings such as those used in connection with store fronts, it is desirable to provide an awning fixture which may be readily installed to support the roll upon which the awing is wound and to permit it to be readily manipulated under varying conditions as controlled by the construction of the building upon which it is to be applied. It is the object of the present invention, therefore, to provide a convenient fixture for this purpose which will readily lend itself for application and use under various conditions, and which may be easily adjusted and operated.

The present invention contemplates the use of a bracket adapted to support the awning roll for rotary movement, and which bracket is provided with driving means which may be disposed at any desired and required angle, and which will permit the roll to be readily operated.

The invention is illustrated by way of example in the accompanying drawing, in which:

Figure 1 shows one manner of installing the adjustable awning fixture to permit it to be operated upon the exterior of a building by means of a turning rod.

Figure 2 is a view showing the same fixture, but with the fixture disposed so that it may be operated by a rope drive either within or without the building.

Figure 3 is a view of the fixture as applied to a building without the use of a fixture box.

Figure 4 is an enlarged fragmentary view in section, and elevation, showing the gear case with its cover removed to more clearly disclose the construction of the driving parts.

Figures 5 and 6 show, complementary portions of the roller trunnion and the driving collar provided therefor.

Figure 7 is a view in section and elevation showing one manner in which the awning fixture may be used.

Fgure 8 is an enlarged fragmentary view in section showing the manner in which the adjustable set screws are mounted in the gear case.

Referring more particularly to the drawing: 10 indicates a roll upon which an awning, 11, may be wound. This roll is fitted with trunnions at its opposite ends, one of which is shown at 12 in Figure 4 of the drawing. It is desirable to rotate the roll by driving one of the trunnions and it is the principal object of the present invention to provide a fitting which will embody driving means and will at the same time be adjustable so that it can be set for operation under varying conditions of installation.

The fitting comprises a bracket, 13, which may be mounted within a recess in the wall, 14, as shown in Figures 1, 2 and 7, or may be mounted against the flush face of the wall, as shown in Figure 3. In the recess mounting it is customary to provide a fitting box 15 having an open outer mouth through which the awning, 11, may pass, and by reason of which access may be had to the operating mechanism. The bracket, 13, is formed with feet 16 by which screws 17 may fasten the entire bracket to a permanent mounting. Extending at right angles to the feet is a bracket plate, being substantially circular in formation and having two concentric arcuate slots, 18, formed therethrough. These slots extend through the plate and are disposed diametrically opposite to each other and accommodate set screws, 19, by which the gear case structure, 20, is adjustably secured in position. The gear case comprises complementary halves, 21 and 22, the construction of which is more clearly shown in Figure 4 of the drawing. Here it will be seen that a hub, 23, extends from one side of the gear case and through an opening in the bracket 13. A hub, 24, extends from the opposite side of the gear case and accommodates a clutch ring, 25. The clutch ring 25, as more clearly shown in Figure 6 of the drawing, is formed with a key lug, 26, on the inner flat face thereof, and a clutch segment, 27, projecting from the same face and adapted to register with the seat, 28, notched in the end of the trunnion, 12. The key, 26, registers with a key slot, 29, formed in the end face of the hub, 30, of worm gear 31, which gear is positioned upon the trunnion 12. By this arangement it will be seen that the gear case, 20, may be rotated, due to the fact that its hub, 23, extends through an opening in the bracket 13, and that at any point of adjustment the driving action of the gear 31 will act through the clutch collar, 25, to rotate the trunnion 12. The gear case may be set in any desired position by clamping the set screws 19

against the bracket 13. The complementary halves 21 and 22 of the gear case are provided with bearings which receive a shaft, 32, upon which is mounted a worm gear pinion 33, this pinion being in mesh with the worm gear 31, and being disposed with its rotating axis at right angles to the rotating axis of the worm gear. In the forms of the invention shown in Figures 1, 3 and 7, it will be seen that the shaft, 32, is formed at its end with an eye, 34. This eye may receive the hooked end of an operating rod, 35, as shown particularly in Figure 7. In the event, however, that it is desirable to operate the mechanism by other means, such for example as a pulley cord, the shaft 32 is fitted with a clutch pulley, 33, receiving an operating cord, 33′. This cord may extend outwardly from the face of the building, or may extend inwardly, as indicated by dotted lines in Figure 2, to a position within the building, so that the awning may be raised and lowered from within the building. In any event, it will be noted that the parts of the adjustable bracket do not have to be interchanged, but that they may be readily manipulated to permit any desired adjustment of the gear case and the pinion shaft, 32, to be made.

It is to be understood that the halves 21 and 22 of the gear case are suitably held together by a bolt, 20′. The clutch collar, 25, is held upon the end of the drum 12 by the head of a cap screw, 36, which is screwed into a threaded opening in the end of the drum.

While I have shown the preferred form of my invention as now known to me, it will be understood that various changes might be made in the combination, construction and arrangement of parts by those skilled in the art without departing from the spirit of the invention as claimed.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. A device of the character described, comprising a bracket formed with a bolting portion and a plate extending at right angles thereto, a gear case pivotally mounted upon said plate independently of other means and adapted to swing in a plane parallel thereto, an awning roll extending into said gear case out of contact with said bracket, a worm gear mounted upon the roll within the case and adapted to drive the same, a worm pinion within the case and meshing with the worm gear, a shaft carrying the pinion journaled in and extending from the case, and means for adjustably setting the gear case with relation to the bracket to dispose the pinion shaft in a desired position.

2. A device of the character described, comprising a bracket, having a base portion by which it may be secured to a plane surface, a plate formed as a part of said bracket and projecting at right angles to said plane surface, an opening formed centrally through the plate, a gear case having a hub on one side fitting into the opening and rotatably supporting the same to permit the case to rotate in a plane parallel to the plate by which it is carried, an awning shaft projecting into the side of the gear housing through said hub, a worm gear mounted upon said shaft for driving the same, a worm pinion in mesh with the gear, a shaft carrying the pinion journaled in the gear case and projecting therefrom and means cooperating with said hub for adjustably setting the gear case with the bracket at any point in its rotation whereby the pinion shaft will be conveniently disposed for operation.

3. A device of the character described, for supporting and operating an awning roll, comprising a bracket adapted to be permanently secured to a building, a gear case journaled upon said bracket independently of the awning roll, means for securing said gear case in any desired position upon its journal, gears journaled within said gear case, and an awning roll journal located within and concentric with said gear case journal.

4. A device of the character described for supporting and operating an awning roll, comprising a gear enclosing case, a shaft projecting from the awning roll and extending through said case, a gear upon said shaft having shoulders forming a journal for said shaft in one side of said case, and means for securing said gear to said shaft forming a second journal for said shaft in the other side of said gear case.

SIGMUND KIRSCHBERG.