W. G. MARR.

FLAG SUPPORT.

APPLICATION FILED SEPT. 29, 1919.

1,359,818. Patented Nov. 23, 1920.

Fig. 1.

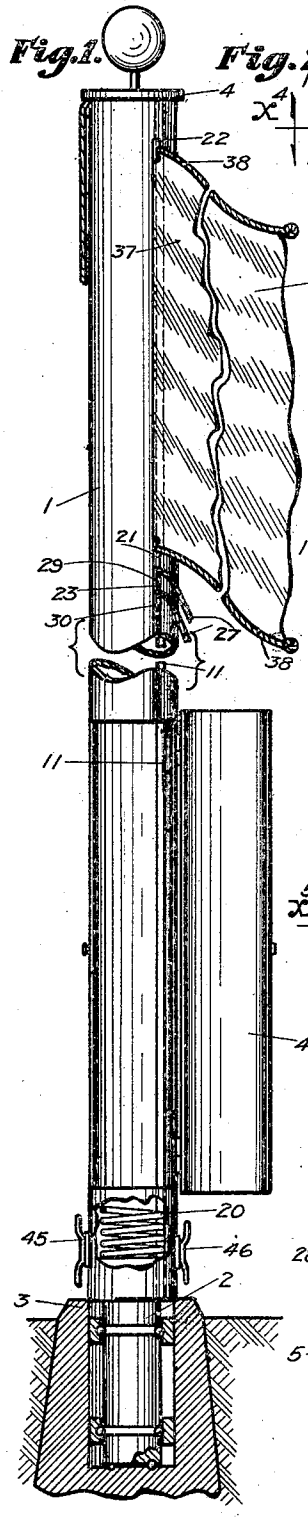


Fig. 2.

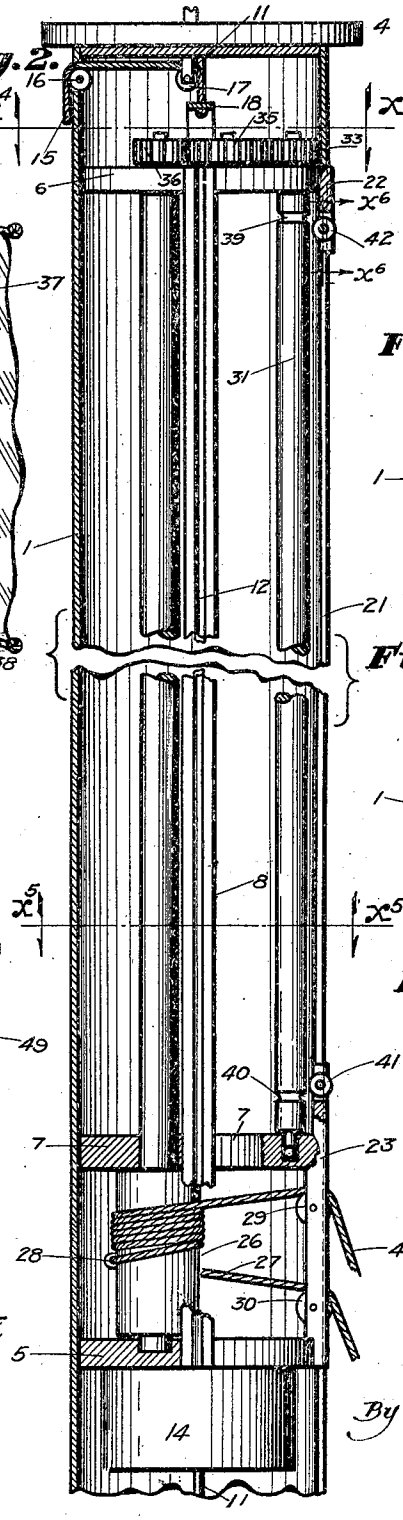


Fig. 3.

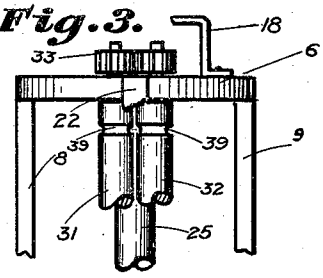


Fig. 4

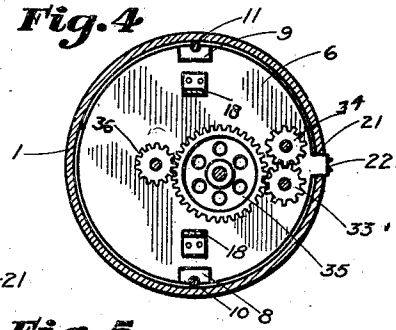


Fig. 5.

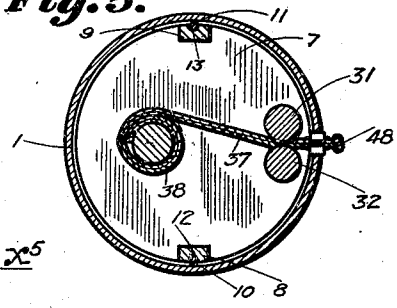
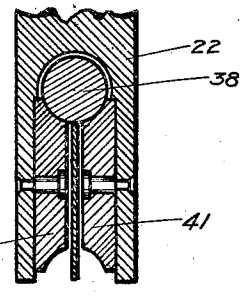


Fig. 6.



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FLAG-SUPPORT.

1,359,818. Specification of Letters Patent. Patented Nov. 23, 1920.

Application filed September 29, 1919. Serial No. 327,237.

To all whom it may concern:

Be it known that I, WILLIAM G. MARR, a citizen of the United States, residing at Bakersfield, in the county of Kern and State of California, have invented a new and useful Flag-Support, of which the following is a specification.

My invention relates to flag supports and has more particular relation to that type of device designed to house a furled flag and having mechanism for manipulating the flag without manual handling.

The object of the invention is to provide a tubular flag staff as a housing or casing for a furled flag and to provide a mechanism adapted to furl and unfurl the flag at various elevations without manual handling.

A further object is to provide positive guide and feeding means for accurately feeding and guiding the flag through the flag passage in the tubular staff.

To this end the invention consists of certain novel features of construction and combinations of parts, the essential elements whereof are recited in the appended claims and a preferred form of embodiment of which is described in detail hereinafter and fully illustrated in the accompanying drawing forming a part of this disclosure.

In the drawing corresponding reference characters designate corresponding parts throughout the several views, of which:

Figure 1 is a perspective view of my improved flag staff and container.

Fig. 2 is a vertical section of the upper portion thereof with the flag omitted.

Fig. 3 is a detail elevation of the upper portion of the elevator.

Fig. 4 is a plan section on line x^4—x^4 of Fig. 2.

Fig. 5 is a plan section on line x^5—x^5 of Fig. 2, showing the flag furled.

Fig. 6 is a detail vertical section on line x^6—x^6 of Fig. 2.

In the drawings, 1 designates a tubular flag staff forming a housing for the flag and the flag manipulating mechanism. Secured in the lower end of the staff is a bearing plug 2 which is rotatably journaled in a base 3, suitable ball bearings being provided, as shown, if desired. A cap 4 closes the top of the staff as a protection for the interior mechanism of the staff.

The flag manipulating mechanism is carried by an elevator vertically slidable within the staff and comprising a bottom plate 5, a top plate 6, an intermediate plate 7 and a pair of opposed tie bars 8—9, joined to each of the plates respectively. A pair of opposed vertical guide rods 10—11 is positioned closely adjacent the inner periphery of the staff and the rods are secured at their opposite ends to the staff. Vertical grooves 12—13 are formed in the outer surfaces of the tie bars 8—9 of the elevator and the rods 10—11 engage in these grooves to maintain the elevator in spaced relation to the staff, providing a freely slidable elevator free from frictional contact with the inner periphery of the staff.

The elevator has a weight 14 attached to the bottom plate 5, to influence the downward travel of the elevator when released and the elevator is translated upwardly within the staff by a cable 15 which passes through an orifice in the upper end of the staff, over cable sheaves 16—17, and is attached to a bail 18 fixed to the top plate 6 of the elevator. A buffer spring 20 is positioned on the plug 2 of the staff and the staff is provided with a door affording access to the interior thereof.

The staff 1 has a vertical slot 21 serving as a flag passage and the elevator frame includes upper and lower key bars 22—23 adapted to engage within said slot. These key bars serve as means for preventing the elevator from turning.

The flag furling and unfurling mechanism comprises a flag arbor 25 rotatably journaled in the elevator plates 5, 6 and 7 and provided with a drum 26 between the bottom and intermediate plates 5 and 7. An operating cable 27 is attached to said drum as at 28 with its ends wound around the drum and entrained through openings in the key bar 23 over sheaves 29—30 journaled within said openings.

Closely adjacent the inner periphery of the staff and positioned on opposite sides of the slot 21, I provide two coöperating feed rollers 31—32 which are journaled in the elevator plates 6 and 7 with their upper ends projecting above the top plate 6 and rotatably connected by intermeshing gear pinions 33—34 fixed thereto. The pinion 33 meshes with an idler gear 35 which is journaled on the top plate 6 and in turn meshes with a gear pinion 36 fixed to the upper extended end of the flag arbor 25. This mechanism provides a flag arbor and a pair of feed rollers which are coincidently rotated by the manipulation of the operating cable.

The flag 37 is secured to the flag arbor 25 and is entrained between the feed rollers 31—32 and outwardly through the slot 21 in the tubular staff and as shown, has binding ropes 38 attached to the top and bottom edges thereof and to accommodate these ropes, the feed rollers, adjacent their ends, are provided with transversely alined circumferential grooves 39—39 and 40—40.

For the purpose of guiding the flag through the slot 21 I provide pairs of guide wheels 41—41 and 42—42 which are journaled in the opposed limbs of the bifurcated ends of the key bars 22—23. These wheels are relatively spaced to permit the flag to pass between their adjacent sides and the periphery thereof is contoured to engage the binding ropes on opposite sides of the flag, as shown in Fig. 6.

To limit the furling of the flag, the binding ropes 38 have knotted ends or are otherwise enlarged as by a cap 48, as shown in Fig. 5.

Suitable cleats 45—46 are secured to the exterior of the lower portion of the staff for securing the ends of the cables and the staff is provided with a door 49 affording access to the interior.

Fig. 2 shows the mechanism as positioned when the flag is unfurled. To furl the flag the end 47 of the cable 27 is pulled to rotate the flag arbor 25 and the feed rollers 31—32 at the same time winding the opposite run of the cable 27 upon the lower portion of the drum 26 for a subsequent reverse rotation thereof.

I claim:

1. A device of the class described comprising a tubular flag staff having closed ends and a longitudinal slot, a flag supporting and manipulating mechanism contained and vertically movable in said staff and having means engaging into the slot to retain said mechanism against bodily rotary movement, and means for translating said mechanism.

2. A device of the class described comprising a tubular flag staff having a longitudinal flag passage, a flag supporting and manipulating mechanism slidably mounted within said staff, means for translating said mechanism, and means for maintaining said mechanism in spaced relation to the inner periphery of the staff.

3. A device of the class described comprising a tubular flag staff having a longitudinal flag passage, an elevator slidably mounted within said staff, means preventing rotation of the elevator, a flag arbor journaled in the elevator, feed rollers journaled in the elevator, means for rotating the arbor and feed rollers, and means for translating the elevator.

4. A device of the class described comprising a tubular flag staff having a longitudinal flag passage, an elevator slidably mounted within said staff, means preventing rotation of the elevator, a flag arbor journaled in the elevator, feed rollers journaled in the elevator, transmission devices connecting the arbor and feed rollers, means for rotating the arbor and feed rollers, and means for translating the elevator.

5. A device of the class described comprising a tubular flag staff having a longitudinal flag passage, an elevator slidably mounted within said staff, means preventing rotation of the elevator, a flag arbor journaled in the elevator, feed rollers journaled in the elevator, guide wheels journaled in the elevator adjacent the ends of the flag passage, means for rotating the arbor and feed rollers, and means for translating the elevator.

6. A device of the class described comprising a tubular flag staff having a longitudinal flag passage, an elevator slidably mounted within said staff, means preventing rotation of the elevator, a flag arbor journaled in the elevator, a pair of feed rollers journaled in the elevator at opposite sides of the flag passage and having relatively alined circumferential grooves, guide wheels journaled in the elevator, means for rotating the arbor and feed rollers, means for translating the elevator, a flag having rope bound edges and attached to the arbor with the binding ropes entrained in the grooves of the feed rollers and engaging the guide wheels, the flag being entrained between said feed rollers and through the flag passage of the staff.

7. A device of the class described comprising a tubular flag staff having a longitudinal slot, an elevator slidable in said staff and engaging the slot to prevent rotary movement of the elevator, flag supporting and manipulating mechanism carried by the elevator, and means for translating the elevator.

Signed at Bakersfield, California, this 19th day of September, 1919.

WILLIAM G. MARR.

Witnesses:

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JESSE HABERKERER.