May 30, 1961 S. S. PIKE ET AL 2,985,975

POWER OPERATED TELESCOPIC SIGN

Filed Oct. 10, 1958

FIG. 2

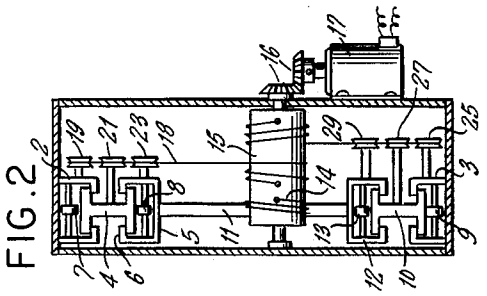


FIG. 1

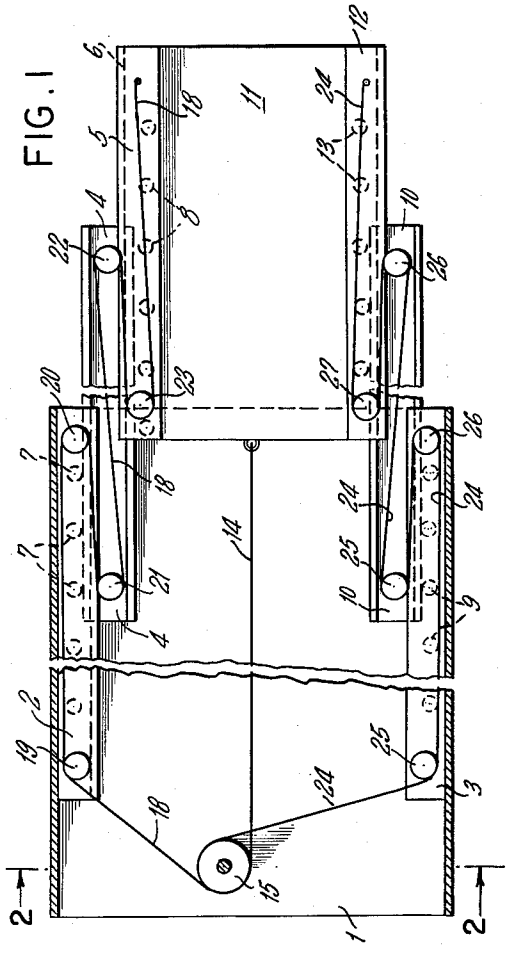
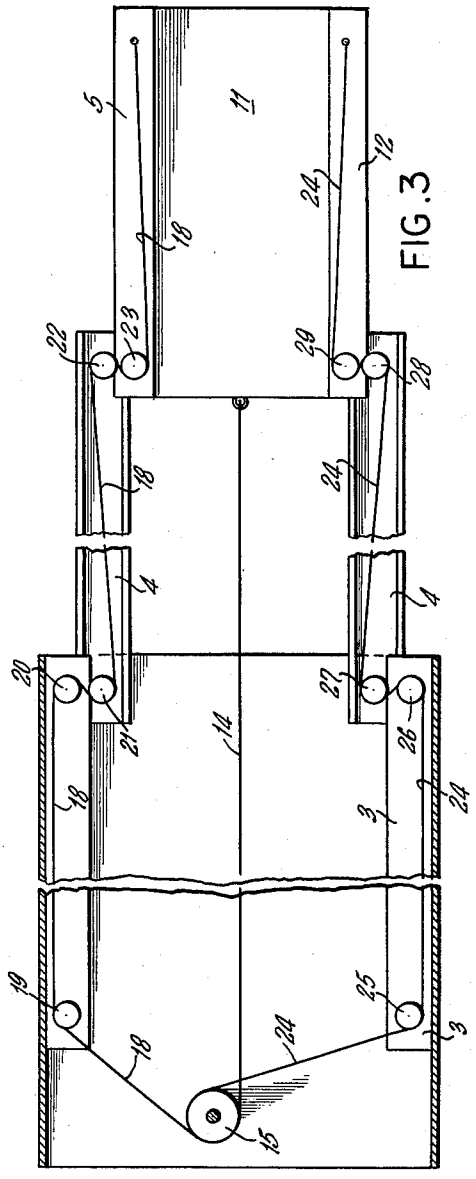


FIG. 3



INVENTORS
S. Sidney Pike
BY Gunnar Hansen
H. Lee Helms

ATTORNEY

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POWER OPERATED TELESCOPIC SIGN

S. Sidney Pike, 159—39 101st St., Howard Beach, N.Y., and Gunnar Hansen, Pompton Lakes, N.J.; said Hansen assignor to said Pike

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1 Claim. (Cl. 40—30)

An object of the present invention is to provide a sign adapted for a store front, and which will automatically be projected into view and thence withdrawn from view. The characteristic of the invention is that the elements are so combined and arranged that they may be brought inwardly of a building front into small compass and projected for a considerable distance due to telescopic arrangement and the use of a single power device, usually an electric motor acting on a drum and which motor will have reverse action on the drum in practice.

The invention will be described with reference to the accompanying drawings, in which:

Fig. 1 is a view in elevation showing the primary elements of the sign, the casing being partly broken away, showing the elements partly projected;

Fig. 2 is a vertical section on the line 2—2, Fig. 1;

Fig. 3 is a view similar to Fig. 1, showing the elements fully projected.

Referring to the drawings, I have shown at 1 a support or casing having fixedly secured thereto a top trackway 2 and a bottom trackway 3. Within trackway 2 is a slideable elongated carrier 4, and which carrier in the present embodiment is H-shaped, providing an upper flanged head and a lower flanged foot. On the latter is slidingly mounted a rail 5 which has inwardly directed top flanges 6 normally resting on the flanges of the foot of carrier 4.

Carried by the member 2 are a plurality of anti-friction rollers 7 for carrier 4, and said carrier rests on a plurality of anti-friction rollers 8 carried by rail 5, on which a sign may be secured.

Trackway 3 is non-essential, but its use is preferred. When used, trackway 3 may be provided with a plurality of anti-friction rollers 9 upon which a carrier 10 may rest and move, the construction carrier 10 being the same as carrier 4. Rail 5 is positioned at the top of a sign element 11, to which is affixed a bottom rail 12 which may be the same in form as rail 5 but inverted in position. Rail 12 may carry a plurality of anti-friction rollers 13 contacting the upper surface of carrier 10.

Connected to the inner end of the sign element 11 is a cable 14 wound about a drum 15 carried by casing 1 and driven by gears 16 leading to a power device, such as electric motor 17 which in practice will be reversible.

Wound on the drum 15 in such manner that rotation of the drum to pull sign element 11 inwardly is a cable 18. This cable is led over a first pulley 19 on trackway 2 and thence is led over a second pulley 20, at the outer end of trackway 2. The cable then is led downwardly and back to a pulley 21 on carrier 4 and is projected from under pulley 21 over the top of a pulley 22 at the front end of carrier 4. Then cable 18 is led under and backwardly with respect to pulley 22 and thence over and under pulley 23 on rail 5. Finally cable 18 at its outer end is secured to rail 5.

Drum 15 carries a second cable, with respect to cable 18, when carrier 3 and its associated elements are used, and this cable is wound on the drum in the same direction as cable 18, being shown at 24. Cable 24, when used, leads under a pulley 25 on trackway 3 thence under a pulley 26 on said carrier and upwardly over a pulley 27 at the rear end of member 4. Cable 24 then passes to the front end of member 4 and under and upwardly from a pulley 28, thence extending rearwardly and over a pulley 29 on rail 12 from which it extends to a point of attachment to rail 12.

The position of the elements in Fig. 1 shows that drum 15 has been operated to partially project the sign element 11. In such action cables 18 and 24 are wound inwardly and pulleys 20 and 26 act as fulcrums with respect to the cables compelling forward movement of carriers 4 and the sign element. During the winding in of cables 18 and 24, cable 14 is correspondingly released. Continued operation of the drum will cause the moveable elements to reach the extended position of Fig. 3.

By means well known in the art and forming no part of the present invention, the motor of 17 will be reversed after the sign has been projected for a predetermined period of time. Thereupon drum 15 will wind in cable 14 and at the same time pay out cables 24 and 18 so that pulleys 21 and 25, with the members which carry them, will be brought, as to the pulleys, substantially in line with pulleys 19 and 25, and pulleys 23 and 27 will be brought substantially in line with pulleys 21 and 25. By "in line" is meant vertical alinement.

It will be understood that various modifications may be made in the form and arrangement of the elements without departing from the spirit of the invention.

Having described our invention, what we claim and desire to secure by Letters Patent, is as follows:

A telescopic sign comprising a support adapted to be mounted vertically in front of a building, a set of horizontally spaced pulleys carried by the support at its top and a set of horizontally spaced pulleys carried at its bottom, each set comprising an inner pulley and an outer pulley, spaced horizontal trackways on said support, a second member adapted to be carried by and projected outwardly from the first member, said second member having vertically spaced tracks movable on said trackways of the support, two vertical spaced sets of pulleys on said second member, each set comprising an inner pulley and an outer pulley, a third member adapted to hold a sign and adapted to be supported by the second member and projected outwardly thereof, means interengaging the second and third member for relative sliding movement, vertically spaced pulleys on said third member, a drum, a cable connecting the drum with the third member for retracting the latter, and two cables connected to the drum, the first cable leading therefrom over the top pulleys of the first member, under the top inner pulley of the second member, over the top outer pulley of the second member, thence under the pulley of the third member to which the cable is secured, the second cable leading from the drum under the bottom pulleys of the first member, thence over the inner pulley of the second member and under its outer pulley, said second cable then being led over the pulley of the third member, the outer end of said second cable being secured to said third member.

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