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FOOT ATTACHMENT FOR BLOCK AND TACKLE TYPE SPRING COUNTERBALANCES

Filed April 1, 1960

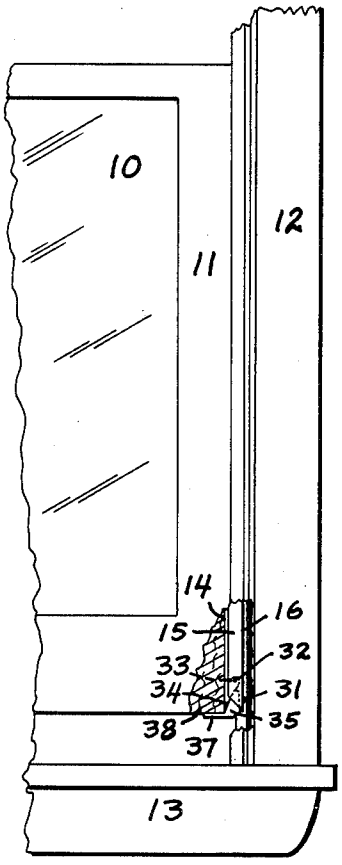

Fig. 1

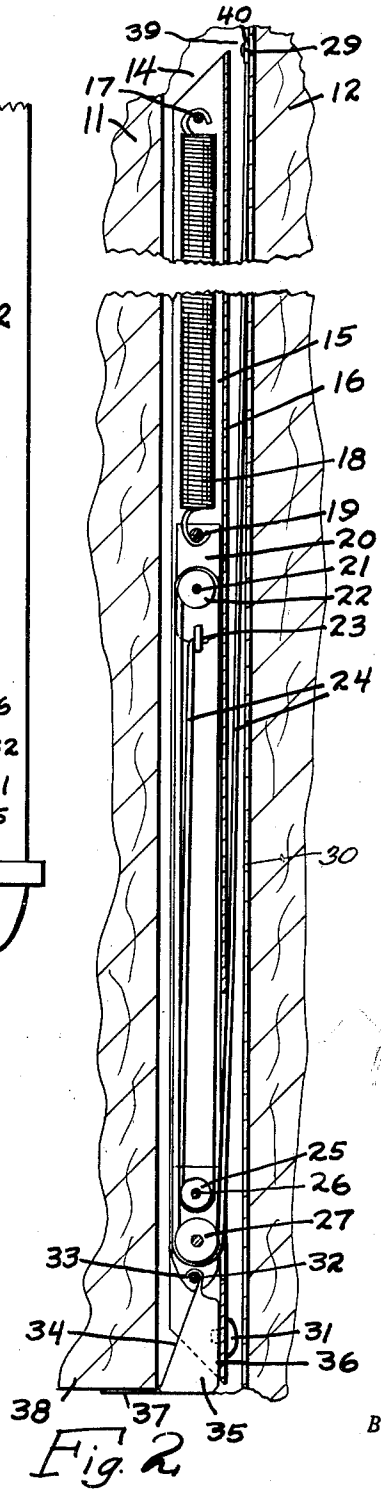

Fig. 2

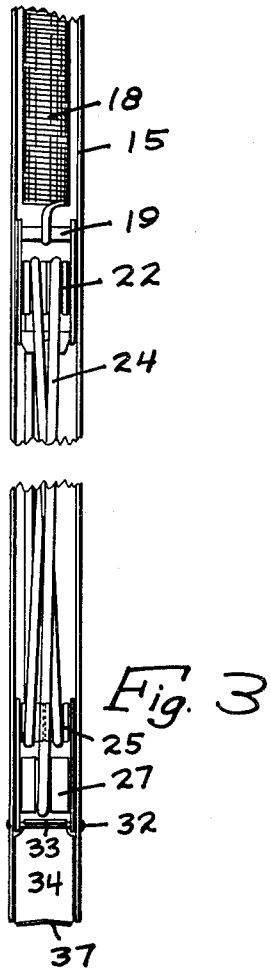

Fig. 3

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1 Claim. (Cl. 16—197)

My invention relates to a simple attachment which is used in combination with spring type counter-balances and which will enable the device to be readily attached, and which will also provide a device of this character which is very simple in construction and yet will function properly at all times.

With these and other objects in view, my invention consists in the construction, arrangement, and combination of the various parts of my device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claim, and illustrated in the accompanying drawings, in which:

FIGURE 1 is an elevation showing a section of a window sash and jamb using my device,

FIGURE 2 is an enlarged sectional detail of FIGURE 1, and

FIGURE 3 is a forward view of a portion of FIGURE 2.

I have used the character **10** to designate a window inserted within the movable sash **11**, the character **12** indicating a standard jamb, and the character **13** indicating the lower window portion.

The sash **11** includes a side channel **14** and positioned within this side channel I provide the channel member **15** having the end wall **16**, this channel member including an upper pin **17** to which is attached the spring **18** which is attached to a pin **19** which is attached to a movable carriage **20** which includes the pin **21** on which is journalled the upper roller **22**, and attached at **23** to the carriage **20** is a cable **24** which in turn passes over a lower roller **25** which is journalled on the pin **26**, which pin is secured to the channel **15**, this cable thence passing upwardly and over the pulley **22** and thence downwardly and under a further pulley **27** which is journalled on the pin **28**, this arrangement being substantially as shown in Patent No. 2,262,990, issued November 18, 1941, to George C. Cross and Dawson J. Dinsmore, with the exception that fewer rollers are employed herein.

The cable **24** then passes upwardly and is secured as at **29** to the metal channel member **30** in which the sash side **11** moves. Secured to the lower end of the channel **15** is a plastic button **31** which can bear against the member **30** during portions of the travel.

Attached across the channel member **15** is a pin **32**, and engaging this pin **32** is the curled portion **33** which continues from an angularly inclined wall portion **34** of

a foot attachment which also includes the sides **35** which abut at **36** against the channel end wall **16**, and extending integrally from the wall **35** is the stop portion **37** against which the lower corner **38** of the sash abuts.

The channel member **15** is relatively easy to install with this particular foot member since the entire channel carrying the block and tackle spring counter-balance arrangement can be forced downwardly within the channel **14** with the cable **24** being attached at its upper position or approximately at the position shown by the character **39** in FIGURE 2, the small lug **40** providing the attachment at **29**. The ear **33** is then engaged with the pin **32** and the entire counter balancing arrangement will be thus held against the spring pressure of the cable **24** and this spring tension will be constantly exerted against the window.

It will thus be obvious that the foot attachment is convenient and easy to install and replace and provides further advantages readily apparent.

Some changes may be made in the construction and arrangement of the parts of my invention without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claim any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim as my invention:

In combination, a window sash having a channel formed in the side thereof and also having a lower edge portion, a channel member positioned within said channel and having an end wall, a block and tackle type spring counterbalance positioned within and having a portion connected to said channel member, a pin supported by said channel member and extending laterally thereof, a foot attachment comprising an integral member including side walls with a curled portion continuing from the upper portion of said side walls and an integral stop portion extending laterally from the lower portion of said side walls, said curled portion extending over and engaging said pin, said stop portion engaging said lower edge portion of the sash, and a portion of said side walls abutting said end wall of the channel member, whereby said foot attachment serves as a means for mounting one end of the counterbalance and also to substantially center said channel member within said channel in the window sash.

References Cited in the file of this patent

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