No. 856,076. PATENTED JUNE 4, 1907.

T. LUDWIG.

SUSPENSION DEVICE PARTICULARLY ADAPTED FOR CURTAINS.

APPLICATION FILED SEPT. 7, 1906.

Fig. 1

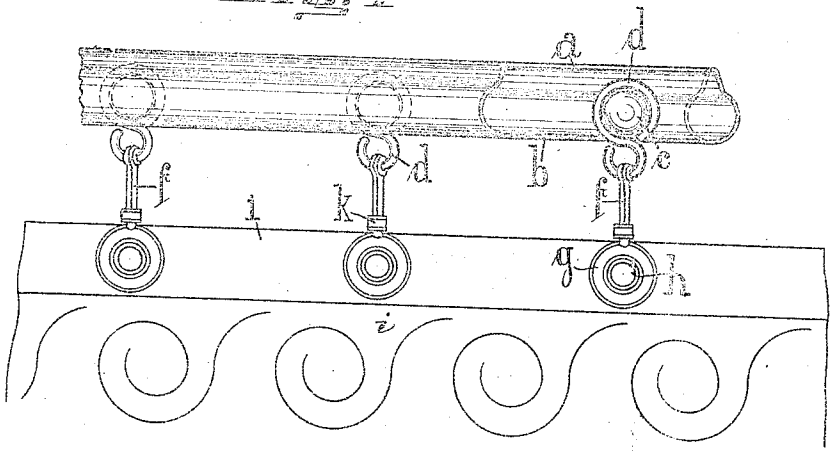


Fig. 2

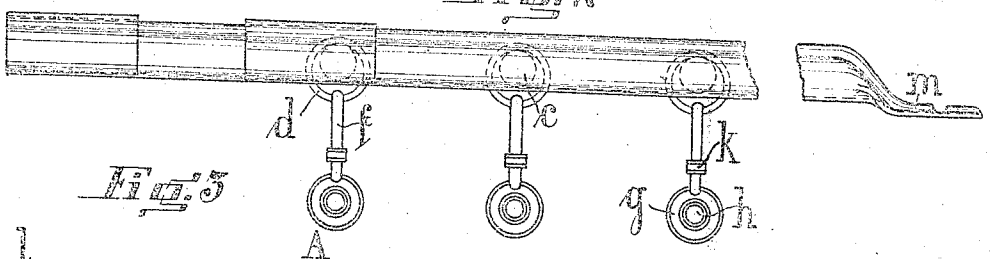


Fig. 3

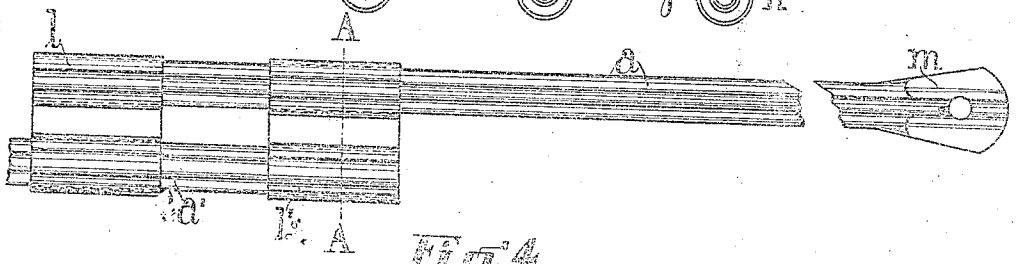
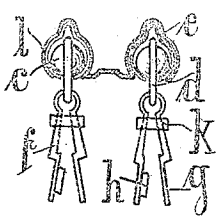


Fig. 4



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UNITED STATES PATENT OFFICE.

THOMAS LUDWIG, OF BARMEN, GERMANY.

SUSPENSION DEVICE PARTICULARLY ADAPTED FOR CURTAINS.

No. 856,076. Specification of Letters Patent. Patented June 4, 1907.

Application filed September 7, 1906. Serial No. 333,631.

To all whom it may concern:

Be it known that I, THOMAS LUDWIG, a citizen of the German Empire, and a resident of 71 Wertherstrasse, Barmen, Germany, have invented certain new and useful Improvements Relating to Suspension Devices Particularly Adapted for Curtains, of which the following is a specification.

This invention relates to a curtain pole which is made hollow and incloses balls from which the curtain or similar article is suspended by means of rings. These rings are so guided within the pole that an unseating of the rings is prevented and a free movement of the curtain is insured.

In the accompanying drawing:—Figure 1 is a plan view of the device as applied to curtain rods; the path for the balls is shown partly in section. Fig. 2 illustrates a construction of a supporting rod adjustable in length, in elevation. Fig. 3 is a corresponding plan view, and Fig. 4 is a cross-section on the line A—A of Fig. 2.

The tube *a*, which is formed from a strip of metal of appropriate width and thickness, presents a longitudinal slot *b* on its under side. The balls *c* run with a certain amount of play in the tube *a;* these balls may be such as are largely employed in known forms of ball bearings. The rings *d* are placed over the balls *c*, likewise with some amount of play; they extend outside the tube through the slot *b*. In order to prevent the rings from slipping off the balls *c* laterally and thereby becoming wedged in the tube *a*, and also to provide space for their free longitudinal displacement, the tube *a* is provided on its upper side and diametrically opposite slot *b* with an indented hollow bead *e*. This hollow bead *e* likewise serves as a strengthening rib, preventing the sagging and deformation which would otherwise be liable to occur in the case of rods of considerable length having to support any appreciable load, as such rods are generally made from relatively thin sheet metal. The curtain holders *f* are suspended in the outwardly projecting portion of the rings *d*, and carry the curtains or the like by means of a fixing device consisting of a ring *g* and a head *h* fitting into the same. The hem of the curtain or blind *i* is placed between the ring *g* and the head *h*, and clipped between the two by depressing the slide *k*. The blind *i* may then readily be drawn to and fro either by hand or by means of a cord in the known manner. The balls *c*, with the rings *d* arranged over them, are introduced from the open side of the tube *a*, which may then be closed in any convenient manner. If in place of blinds or curtains *i* other articles are to be displaceably suspended on the novel supporting rod, the curtain holders *f* in the rings *d* may be replaced by hooks, from which the articles in question may be suspended.

The constructional form represented in Figs. 2 to 4 illustrates the manner in which a supporting rod in accordance with the invention may be adjusted to any desired length, as is required owing to the variation in the width of the doors or windows at which the supporting rods may have to be arranged. As, however, this amount only varies within small limits, it is sufficient to supply supporting rods the length of which may be varied somewhat above or below a given normal size. The supporting rod here represented, which in the main corresponds to that already described, is in this case composed of two parts *a* and *a'*, the ends of which overlap. On each of these ends, the sliding parts *l* and *l'* are fixed respectively, and slide freely on the other member of the tube, by which means both the tube members *a* and *a'* receive a parallel guidance, and are likewise rendered capable of supporting bending strains. Now, as the slot *b* on the under side of the tubes *a* and *a'* is also carried through the sliding parts *l* and *l'*, the rings *d* are able to pass over the places where the two tubes meet, which is not the case where the rings are passed over supporting rods in the known manner. By means of this device, which is intended mainly for curtains in two parts, it is therefore possible to draw the curtains close together, or even to cause them to overlap. The outer ends of the tubular members *a* and *a'* are pressed so as to form lugs *m* by means of which the supporting rod may be fixed in position.

Claims:

1. A device of the character described, comprising a tube having a lower slot, balls traveling in the tube, downwardly projecting rings embracing the balls, and means forming part of the tube diametrically above the slot for guiding the rings, substantially as specified.

2. Supporting rod for longitudinal suspension devices, consisting of a tube with a longitudinal slot, a hollow bead opposite this lon-

gitudinal slot, balls in the tube, and rings over the balls passing outside through the slot and guided in the hollow bead.

3. Supporting rod for longitudinally displaceable suspension devices, consisting of two tubes with longitudinal slots, hollow beads on the opposite sides of the same, balls in the tubes and rings over the balls, the tubes mutually overlapping, and clips fast on one side and loose on the other, and being relatively displaceable.

Signed by me at Barmen, Germany, this 27th day of August 1906.

THOMAS LUDWIG.

Witnesses:
OTTO KÖNIG,
WILHELM FLÜSLOH.