ATTACHING DEVICE FOR CLOTH, RIBBON, CORD, AND THE LIKE.

UNITED STATES PATENT OFFICE.

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To all whom it may concern:

Be it known that I, JAN KEISER, of The Hague, Netherlands, have invented certain new and useful Improvements in Attaching Devices for Cloth, Ribbon, Cord, and the like; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The present invention relates to a device for attaching cloth, ribbon, cord and the like in which the fabric can be attached without requiring any further manipulation such as nailing, sewing, etc.

Similar devices having the same object have already been proposed (cf. e. g. the British Patent No. 26683 A. D. 1908). According to the said patent the fabric is passed on a strip or bar of substantially triangular section, with which it is slid into a hollow part formed with a slot engaged by the right angle of the said strip or bar and through which the ends of the fabric extend outwardly. If the fabric is tightened by a pull on one of its ends the triangular strip or bar with the cloth comes into gripping engagement in the hollow of the supporting member which is suitably formed to this end.

The present invention relates to a gripping device in which the fabric is also passed around a bar or pole by which it is brought into gripping engagement with a supporting member. According to the invention the bar or pole and the hollow in the supporting member; which in the prior arrangement must of necessity have an irregular form, are made of circular section, the bar or pole being provided with a rib or with cams projecting into the slot in the supporting member, the fabric extending outwardly at both sides of the bar. If the fabric is tightened by a pull on one of its ends, the rib or the cams come into engagement with one or the other walls or sides of the slot and so firmly grips the fabric.

This device has the following advantages over the prior construction: In the very first place the attaching device according to the present invention can be made with two tubes one of which can be slid into the other, but which need not at all fit each other, the outer tube having a slot and the inner tube being formed with a rib extending into the said slot. Further the gripping engagement can be brought about with a perfectly flat supporting member which needs only be provided with a slot for receiving the rib of the gripping bar. Last not least the attaching device according to the invention permits of the fabric being preliminarily tightened which may be desirable for projection screens, tents and the like. For this purpose the fabric is firmly passed over a cylindrical bar which has no gripping rib and together with this bar it is slid into the supporting member. If a pull is exerted on one end of the fabric, the cylindrical bar will rotate due to the circumferential friction thereon, and the fabric will be tightened. When the desired tension has been reached, the cylindrical smooth bar is replaced and pushed out from one side by a cylindrical bar provided with a gripping rib.

In the accompanying illustrative embodiment of the present invention, Figure 1 is a cross section through the gripping device with the fabric in gripping engagement between them, and Fig. 2 is a broken side view of the same.

If the fabric is attached to the supporting member, b the slot a is the supporting member, b the slot c the gripping bar with rib d projecting into the slot b; e is the fabric to be attached, which as shown is passed over the gripping bar c and at both sides of the rib d extends through the slot b of the supporting member a. If a pull is exerted on the right hand side of the fabric as shown in Fig. 1, the rib d is forced toward the left hand side wall of the slot b and firmly presses the fabric against the said wall or edge. Besides the gripping bar c is pressed against the supporting member a on both sides of the slot b, this pressure being proportionate to the pull exercised on the fabric, and the latter is thus clamped between the two said members. If a pull is exerted on the left hand side end of the fabric the latter is gripped in a similar manner by the rib d coming into engagement with the right hand side wall of slot b.

The present invention has a very broad application, e. g. for attaching window shades to their rollers. The curtains can thereby be attached and taken off in the least possible time and without being damaged in any way. The invention can further be applied to the manufacture of lit-
ters, couches, field-beds and the like. From a hygienic point of view a great advantage is thereby realized, viz. that the fabric on which the sick or wounded person has lain can instantly be detached from the supporting bars, cleaned and replaced to position, as the fabric is then accessible from all sides, which is not the case with the loops now in use for attaching the fabric to the supporting poles.

The invention can also be made use of for pitching or erecting tents made of canvas, etc., and specially in cases where sails are to be tightened; it can further be applied on paper holders, parasols or screens, projection screens, etc.

Claims:

1. A gripping device of the character described comprising a slotted support and a clamping rod having a projecting element extending into said slot in the assembled position of the parts, said rod in operating position lying within a bight in the material engaged which is passed through the slot in the support, the material being gripped by the projecting element and one side of the slot, substantially as described.

2. A gripping device of the character described comprising a slotted support and a cylindrical clamping rod having a fin extending into said slot in the assembled position of the parts said rod in operating position lying within a bight in the material engaged, which is passed through the slot in the support, the fin on the rod gripping the material between the fin and one side of the slot, substantially as described.

3. A gripping device of the character described comprising a cylindrical support longitudinally slotted in combination with a cylindrical clamping rod of less diameter lying within said support and having a fin extending into the slot of the support in the assembled position of the parts said rod in operating position lying within a bight in the material engaged, which is passed through the slot in the support, the fin on the rod gripping the material between the fin and one side of the slot, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

J. KEISER.

Witnesses:

J. E. VON SNIBBEWYCK,
W. H. HOBEBLEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."