

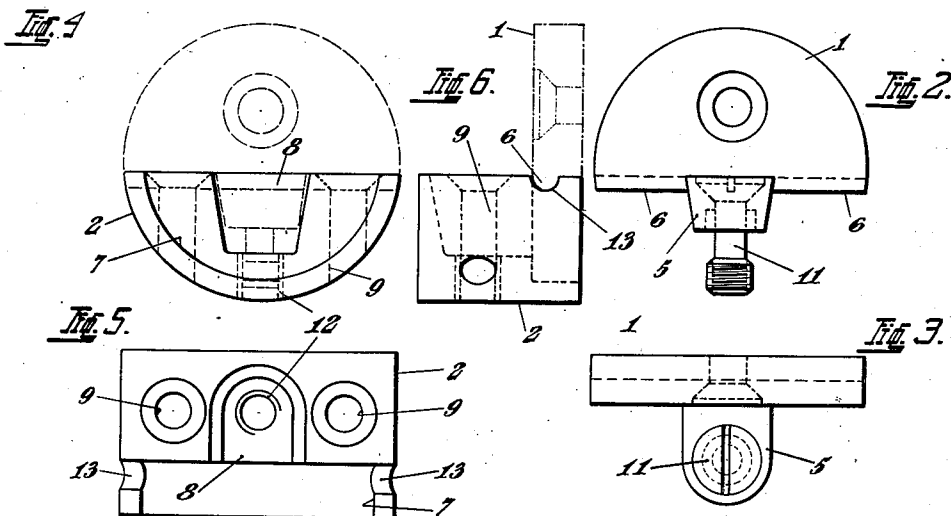
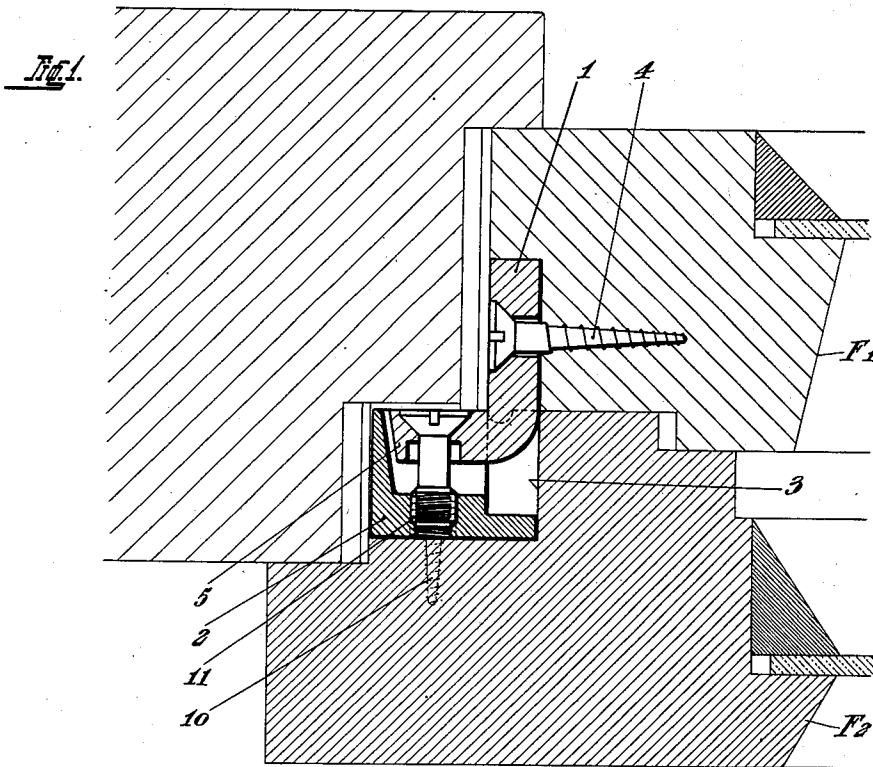
April 19, 1938.

F. STEINER

2,114,508

CONNECTING MEANS, PARTICULARLY FOR DOUBLE WINDOWS

Filed Feb. 18, 1937



Friedrich Steiner
INVENTOR

BY *[Signature]*
his ATTORNEY.

UNITED STATES PATENT OFFICE

2,114,508

CONNECTING MEANS, PARTICULARLY FOR
DOUBLE WINDOWS

Friedrich Steiner, Bern, Switzerland

Application February 18, 1937, Serial No. 126,425
In Switzerland March 11, 1936

5 Claims. (Cl. 20—92)

This invention relates to connecting means, particularly for double windows, and has for its object to provide an improved construction which can be readily assembled and fixed in position and be disconnected without damage to the parts to be connected.

The connecting means according to the invention comprises two members, each to be attached to one of the parts to be connected, and each having a peripheral portion of arcuate shape, one of which members has a rigid arm for entering into a recess in the other member, and a screw for connecting the two members one to the other by drawing them together.

When the two frames of a double window connected together by the improved connecting means are to be separated, this is not done from the outer or inner face visible when the window is closed as is the case when screws extend in known manner through the window frames, but is effected from the joint face by simply undoing the screw connecting the two parts together. Consequently, there is no danger of injuring the paint of the window frames by removing the screws. Another important advantage of the improved fastener is that its application to the window frames is exceedingly simple, as recesses for receiving the two members can be made simultaneously with an ordinary spiral drill or rose bit, so that equipping double windows with such fittings is exceedingly simple.

One embodiment of the invention is diagrammatically illustrated by way of example in the accompanying drawing, wherein

Figure 1 is a cross-section through a connecting means applied to a double window,

Figures 2 and 3 are elevation and plan, respectively, of one of the members, and

Figures 4, 5 and 6 are front elevation, plan and end elevation, respectively, of the other member of the connecting means.

Like reference characters designate like parts throughout the several views.

Referring to the drawing, the illustrated connecting means comprises two semi-circular members 1 and 2 which when placed side by side one on the other have a circular periphery; these members are let into a circular recess 3 which extends into the two window frames F_1 and F_2 to be connected together. The part 1 is attached to the frame F_1 by a countersunk screw 4 which is eccentric in relation to its semi-circular peripheral portion. This single screw 4 suffices for immovably holding the part 1 which cannot rotate owing to the eccentric arrangement of the screw.

The part 1 has an arm 5 at its rectilinear end or bottom straight face which has a rib 6 at both sides of the arm 5 that lies at right angles to the curved body portion of the member.

The part 2 has a recess 7 that opens through its top face as viewed in Figure 1 and through its rear or side face which lies at the right hand in that figure, and a cavity 8 forms an extension of the recess 7 and opens through the top straight face of the member 2. At opposite sides of the cavity 8 there are two holes 9, each for receiving a screw 10 for mounting the member 2 on the window frame F_2 .

The arm 5 of the member 1 carries a countersunk screw 11 having a short stem which is screwed in the cavity 8 into a threaded hole in the member 2. The lower edge of the conical hole in the arm 5 that receives the head of the screw 11 is upset to turn it inwards so that the screw cannot be taken out of the arm 5 and cannot get lost. The threaded portion is rather shorter than the smooth portion of the stem of the screw, whereby it is possible to loosen and tighten singly and independently one or another of the several screws of all the connecting means mounted on a window; consequently, the closing and opening, or the connecting and disconnecting, of the two window frames is greatly facilitated because otherwise all the screws could be slackened or tightened each only a limited amount at one time.

The two parts of the rib 6 engage each into a notch 13 in the ends of the arcuate wall of the recess 7 in the member 2 for ensuring an exact fit of the two members 1, 2 when mounting them on the two window frames F_1 , F_2 or other parts to be connected.

The described connecting means which can be used for connecting together parts of furniture, cases and the like, is exceedingly simple in construction and strong, and comprises only one movable part, i. e. the connecting screw 11.

I claim:—

1. Connecting means, particularly for double windows, comprising two members each for attachment to a part to be connected, and each having a semi-circular peripheral portion, one of which members has a recess, and the second has a rigid arm extending into the recess, and a screw securing the two members together to form a structure having a circular periphery.

2. Connecting means comprising two semi-circular members each for attachment to a part to be connected, one of which members has a rigid arm extending at right angles to it and a hole

extending transversely through the arm, and the second has a recess with a cavity opening into it and a threaded hole in the bottom of the cavity, and a screw extending through the hole in the
5 said arm into said threaded hole for securing the arm in the cavity and recess.

3. Connecting means comprising two semi-circular members each for attachment to one of two parts to be connected together, one of which mem-
10 bers has a cavity opening at two sides thereof, and a threaded hole in the bottom of the cavity, and the second member has a rigid arm that extends into the cavity from the side and has a transverse hole, and a screw extending through
15 the hole in the arm into said threaded hole, which screw is secured in said arm against removal and has a threaded portion shorter than a smooth portion of its stem.

4. Connecting means comprising two semi-circular members each for attachment to one of two
20 parts to be connected together, one of which members has a recess, and a second has a rigid arm extending into the recess from one side

thereof, a screw in said arm securing the two members together to form a structure having a circular periphery, which second member has a rib extending at both sides of said arm, and the first mentioned member has two notches for re-
5 ceiving the two parts of said rib at opposite sides of the arm.

5. Connecting means comprising two semi-circular members, whereof one has a straight bot-
10 tom face, a curved upper face and a rigid arm extending from its lower portion at right angles to its body portion, and whereof the second member has a straight top face, a curved bottom face, and a recess that opens through the top face and a side face and has an extension constituting a
15 cavity that opens through the top face, which arm extends through said side face into said cavity and has a transverse hole, and a screw extending through said hole into the bottom of the cavity for securing the two members together to
20 form a structure having a circular periphery.

FRIEDRICH STEINER.