Aug. 23, 1938. F. A. NIEMANN 2,127,981

SUPPORTING MEMBER

Filed May 13, 1936

Fig. 1.

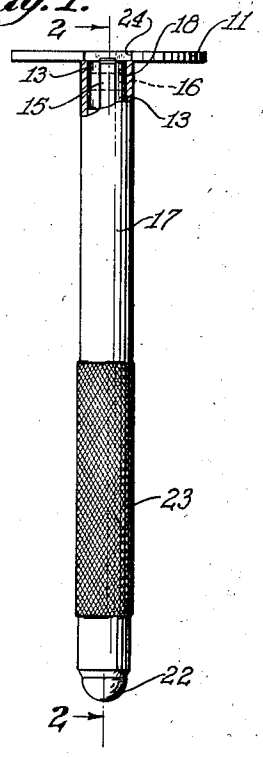


Fig. 2.

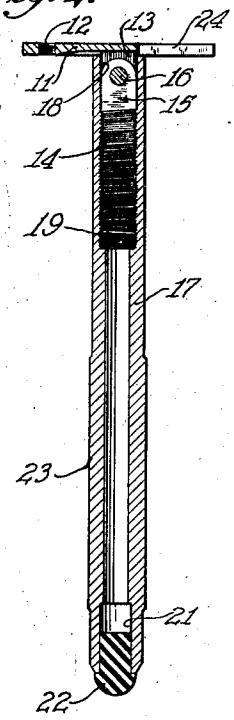


Fig. 3.

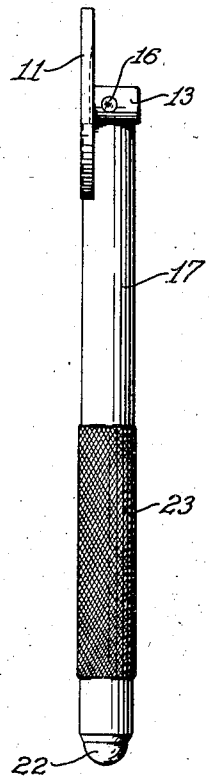
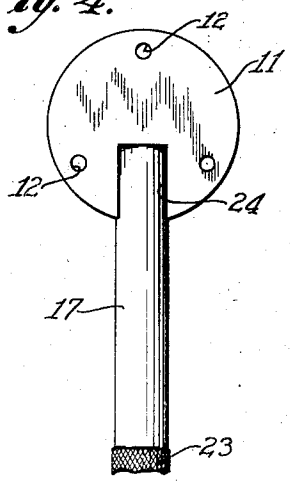


Fig. 4.



INVENTOR.
Frederick A. Niemann

BY

Rasmussen & Brugman
ATTORNEYS.

Patented Aug. 23, 1938 2,127,981

UNITED STATES PATENT OFFICE

2,127,981

SUPPORTING MEMBER

Frederick A. Niemann, Chicago, Ill., assignor to Felt & Tarrant Mfg. Co., Chicago, Ill., a corporation of Illinois

Application May 13, 1936, Serial No. 79,505

4 Claims. (Cl. 248—188)

This invention relates in general to supporting members, and more particularly to a folding leg member for drawing boards, distribution boards, and the like.

A principal object of the invention is the provision of a supporting member having one portion adapted to be rigidly secured to the object to be supported and another part mounted thereon so as to be readily movable to operative or inoperative position.

Another important object of the invention is the provision of a folding leg member having a novel type of joint which facilitates rapid positioning of the leg into extended position and provides a very rigid support.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, when taken in connection with the accompanying drawing, discloses a preferred embodiment thereof.

In the drawing,

Figure 1 is a front elevational view, with parts broken away, of a folding leg member embodying the features of the invention;

Fig. 2 is a vertical sectional view taken substantially on the line 2—2 of Fig. 1;

Fig. 3 is a side elevational view of the leg in folded or inoperative position; and

Fig. 4 is a top plan view of the folding leg member in inoperative position.

Referring more particularly to the drawing, the folding leg member illustrated comprises a disk 11 adapted to be rigidly secured in the usual manner to the drawing board, distribution board, or the like (not shown) which is to be supported, as by means of screws extending through apertures 12 in the disk. Formed integrally with or rigidly secured to the disk 11 are a pair of downwardly extending studs 13 which are so shaped as to constitute similar, oppositely disposed, longitudinal segments of a cylinder.

A bolt or threaded connecting member 14 is provided with a longitudinally flattened end portion 15 which is pivotally mounted between the studs 13 on a pin 16 which is in turn rigidly mounted in the studs 13. The edges of the end portion 15 of the bolt 14 are rounded so as to fall in the plane of the outer surface of the cylinder defined by the studs 13 when the bolt is in its downwardly extending position (Figs. 1 and 2).

A tubular member 17, comprising the supporting leg proper, is provided with an enlarged bore 18 at its upper end adapted to encircle the studs 13 and head portion 15 of the bolt 14, and a threaded portion 19 adjacent to and below the bore 18 with which the bolt 14 is adapted to cooperate (Fig. 2). The lower end of the tube 17 is also provided with an enlarged bore 21 adapted to receive an insert of plug 22 made of rubber, or the like, to prevent slipping of the support or injury to the surface upon which it rests. The exterior surface of the tube 17 is knurled for a portion of its length at 23 to facilitate rotation thereof relative to the bolt 14 and disk 11.

In use, the instant supporting member is in its extended position of Figs. 1 and 2 with the tube or leg 17 screwed up on the bolt 14 over the studs 13 and in tight engagement with the lower surface of the disk 11. In this position, the three members 11, 14 and 17 are rigidly secured together to provide a very strong supporting member.

When it is desired to move the tube 17 to inoperative or folded position, it is partially unscrewed, that is, rotated in a counter-clockwise direction on the bolt 14, until its upper end comes slightly below the lower ends of the studs 13. The tube 17 and bolt 14 may then be swung about the pivot pin 16 into a substantially horizontal position, that is, into an inoperative or folded position in which the longitudinal axes of the members 14 and 17 are parallel to the plane of the disk 11 (Figs. 3 and 4).

In order to allow the tube 17 to be positioned substantially flush with the lower surface of the object to be supported, that is, with the surface to which the disk 11 is secured, the disk 11 is provided with a substantially rectangular recess 24 extending from the outer edge thereof to the base of the studs 13, and the several parts are so related that in its folded position, as seen in Figs. 3 and 4, a portion of the tube 17 will be within this recess 24. The tube 17 may be maintained rigidly in this folded or inoperative position by rotation thereof on the bolt 14 to screw the tube tightly up against the adjacent surfaces of the lugs 13 and the inner surface of the recess 24.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. In a folding support, a first member adapted to be secured to an object to be supported, a threaded member pivotally mounted on said first member, and an internally threaded leg member screwed onto said threaded member and movable therewith relative to said first member between extended and retracted positions, said three members being adapted to be rigidly secured together in either of such posiitons by rotation of said leg into engagement with said first member.

2. In a folding support, an attaching plate adapted to be secured to an object to be supported and having a pair of lugs extending downwardly therefrom, a bolt having a flattened head portion extending between said lugs and pivotally mounted on a pin supported by said lugs, and a leg having a threaded bore adjacent one end within which said bolt engages, whereby said leg and said bolt may be swung relative to said plate into and out of operative position and may be locked in such position by rotation of said leg relative to said bolt and into engagement with said attaching plate.

3. In a folding support, an attaching plate adapted to be secured to an object to be supported and having a pair of lugs extending downwardly therefrom, a bolt having a flattened head portion extending between said lugs and pivotally mounted on a pin supported by said lugs, and a leg having a threaded bore adjacent one end within which said bolt engages, said bolt and said leg being movable together relative to said plate between operative and inoperative positions, and being adapted to be locked in either of such positions by rotation of said leg relative to said bolt.

4. In a folding support, at attaching plate adapted to be secured to the outer surface of an object to be supported and having an aperture therein extending inwardly from an outer edge thereof, a stud member adjacent the inner end of said aperture, a threaded member pivotally secured to said stud member, and an internally threaded leg member screwed onto said threaded member and movable therewith relative to said plate between extended and folded positions so as to be disposed within said aperture when in folded position in substantial contact with said outer surface of said object to be supported.

FREDERICK A. NIEMANN.