Aug. 18, 1925. 1,550,283

M. SCHMIDT

FOLDING SUPPORT FOR SEATS, TABLE PLATES, AND THE LIKE

Filed Feb. 6, 1923

Fig.1.

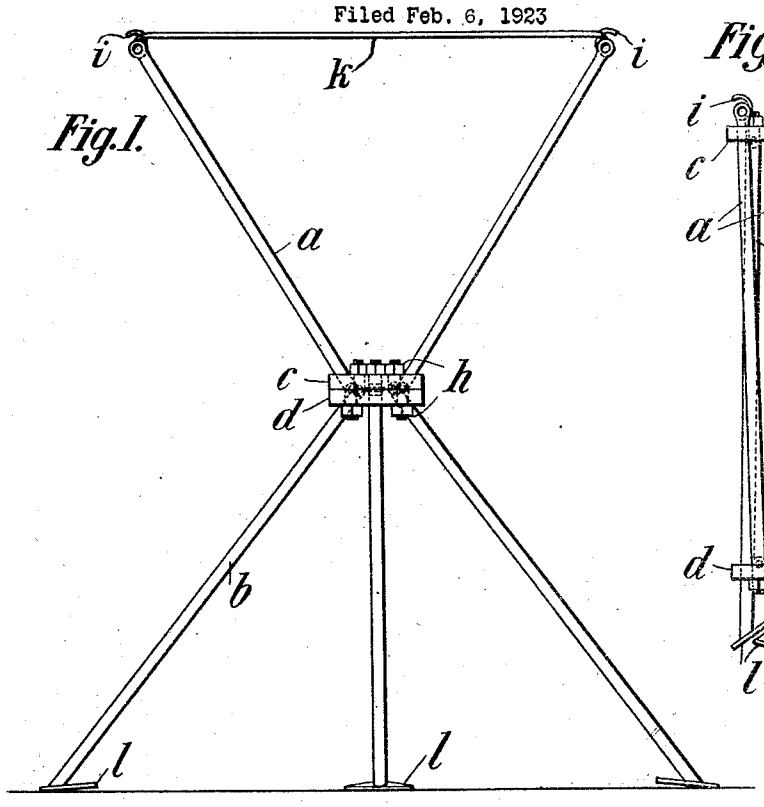


Fig.2.

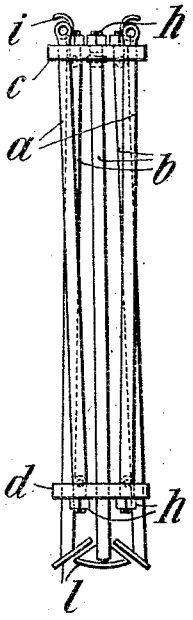


Fig.3.

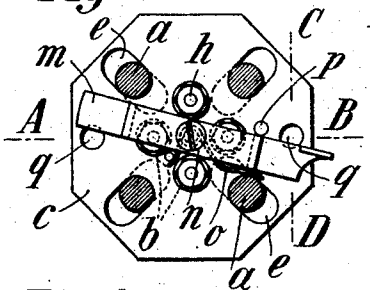


Fig.4.

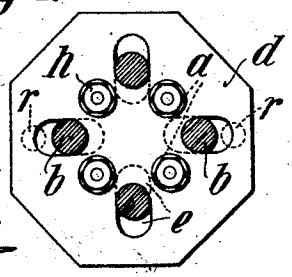


Fig.5.

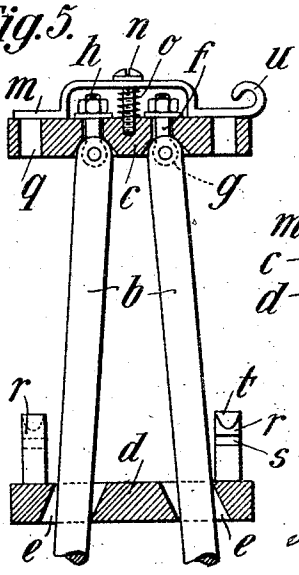
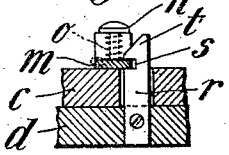


Fig.6.



Witnesses:

Inventor:

Patented Aug. 18, 1925. 1,550,283

UNITED STATES PATENT OFFICE.

MAX SCHMIDT, OF BERLIN, GERMANY, ASSIGNOR TO THE FIRM PÖGEL & SCHMIDT, OF BERLIN-WILMERSDORF, GERMANY.

FOLDING SUPPORT FOR SEATS, TABLE PLATES, AND THE LIKE.

Application filed February 6, 1923. Serial No. 617,393.

To all whom it may concern:

Be it known that I, MAX SCHMIDT, a citizen of the German Republic, residing at Berlin, Germany, have invented certain new and useful Improvements in Folding Supports for Seats, Table Plates, and the like (for which an application for patent has been filed in Germany on the 6th of February, 1922, Patent No. 366,111), of which the following is a specification.

This invention relates to a folding support for seats, table plates, telescopes, photographic cameras and the like which is composed of stays for the seat or plate and of stays serving as feet, all the stays being articulated like shears. Folding stands for camp stools have become known already in which the stays are alternately mounted in two elements loosely guided upon said stays and adapted to be mutually moved, so that when said elements are being moved the one towards the other the folding stand is spread out, the stays being folded up when the elements are moved the one away from the other.

This invention has for its object to increase the stability of folding stands of this type and further the security against accidental folding up. With this object in view the elements movable on the stays and acting upon said stays consist of two massive plane plates which, when the folding stand is in the spread out position of use, are in contact the one with the other upon their entire opposite faces so that tilting or shaking of the stand is absolutely prevented. The ends of the stays fit accurately into cavities of the movable elements which cavities serve as thrust bearings and the ends of the stays are secured in these cavities by means of bolts which traverse the movable elements or plates. Owing to this arrangement of the parts the compressive stress which occurs when the camp stool is being used is well compensated and directly intercepted by the massive plates. As the two plates are automatically locked when they are in contact with one another they form together a very strong block like supporting body.

In order to make the invention clearly understood, I shall hereinafter proceed to describe the same with reference to the camp-stool shown by way of example on the accompanying drawing, wherein:—

Fig. 1 shows the camp stool ready for use.

Fig. 2 shows the camp stool folded up.

Fig. 3 shows on a larger scale in plan view the upper supporting disk, the upper stays being shown in section.

Fig. 4 shows the lower supporting disk in a plan view from underneath, the foot stays being shown in section.

Fig. 5 is a vertical section on line A—B of Fig. 3, the supporting disks being some distance apart.

Fig. 6 is a section on line C—D of Fig. 3, the supporting disks being in close contact.

The folding camp stool shown on the drawing comprises four stays *a* for the seat and four foot stays *b*. Two massive disk-shaped supporting plates *c* and *d* are movably arranged on said stays *a* and *b*. The foot stays *b* are pivotally mounted on the upper supporting disk *c*, the seat stays *a* being guided with sufficient play in slots *e* of the upper supporting disk *c* which extend radially in outward direction. The slots *e* are inclined as shown in Fig. 5.

The foot stays *b* are pivotally fixed in the upper supporting plate *c* by means of screw bolts *f* inserted from above into holes of the disk and having lugs *g* at the lower ends in which said foot stays *b* are pivotally fixed. The upper ends of the stays *b* engage with cavities in the supporting plate *c*, said cavities serving as thrust bearings. Nuts *h* screwed upon the upper ends of the bolts *f* serve to secure the same in position and to securely connect the stays *b* with the supporting plate *c*. The seat or upper stays *a* which are loosely guided in the upper supporting disk *c* are displaced 45° with regard to the foot stays *b* in order to improve the stability of the camp stool and to avoid interference between the bearing points and slots in the supporting plate.

The lower supporting disk *d* is essentially similar to the upper supporting disk, the upper or seat stays *a* being pivotally mounted in this lower disk *d* and the foot stays *b* being guided with play in slots of said disk. The bearing points for the seat stays and the slots for the foot stays are arranged and constructed in the manner as described with reference to the upper supporting disk. The seat stays *a* have hooks *i* at the upper ends to which the seat *k* is attached if the support is in the unfolded po-

sition (Fig. 1). The foot stays *b* have at their lower ends shoes *l* designed to ensure a greater stability of the folding support.

The ends of the stays are of semi-spherical shape as shown in Fig. 5 and engage with cavities of the massive disk-shaped plate *c* which cavities are of corresponding shape so that these two elements act like ball-joints and whatever may be the position of the stays whether folded together or pulled out the pressure is always intercepted by said disk-shaped plates.

Owing to the special mounting and guiding of the stays in the two movable supporting disks the stays will be spread out like shears when said supporting disks are moved the one towards the other but folded together to form a bundle when the supporting disks are moved away the one from the other.

If the support is in unfolded position the plane inner faces of the two supporting disks *c*, *d* are in close contact the one with the other and support each other whereby tilting or shaking of the camp stool is avoided. As the stays *a* and *b* engage with the cavities of the supporting plates *c*, *d* which act like thrust bearings the compressive stress is directly transferred to the massive supporting plates. In this contact position the supporting disks may be locked together with the aid of convenient means in order to secure the support in the unfolded position and to prevent any accidental collapsing of the support.

In the form of construction shown the locking of the supporting disks is automatically effected by spring action as soon as the disks come in contact the one with the other.

With this object in view a lever-like double pawl *m* is arranged upon the upper supporting disk *c* pivotable around the screw *n*. A spring *o* wound around the shaft of screw *n* serves to hold the pawl normally in contact with a pin *p* if two bores *q* of the upper supporting disk *c* are partly covered by said pawl. Two pins *r* registering with the bores *q* of the upper disk *c* and fixed upon the lower supporting disk *d* have each a groove or notch *s* and a bevelled head *t* (Fig. 6).

When the supporting disks come in contact the pins *r* of the lower disk penetrate into the bores *q* of the upper disk and their heads *t* push the pawl *m* aside against the action of the spring until the notches *s* of pins *r* register with the pawl *m*. At this instant the pawl *m* is forced by the action of the spring to engage with said notches *s* and locks the supporting plates together so that they form one block-like body. To fold the support it is necessary to unlock the locking device this being easily effected by lifting the pawl *m* out of the notches *s* with the aid of the curved end *n* of the pawl which serves as handle.

The improved folding support can be used not only for camp stools but also for camp tables, as substitute for tripods and for similar purposes.

I claim:—

In a folding stand for camp stools of the type described, the means for locking the stays in the unfolded spread out position comprising in combination with an upper supporting plate having two vertical bores, and with a lower supporting plate, a spring controlled double pawl pivotally mounted intermediate its ends on said upper supporting disk, two pins having each a notch in its shaft fixed upon said lower supporting disk which register with said bores of the upper supporting disk and penetrate through the same when said disks are brought in contact the one with the other, and a bevelled head of each pin designed to push aside said double pawl until the same is forced by its spring to engage with said notches of the pin, substantially as described and shown and for the purpose set forth.

In testimony whereof I affix my signature.

MAX SCHMIDT.