Oct. 25, 1949. K. T. SNYDER 2,486,218

FOLDABLE PROP

Filed Nov. 9, 1944

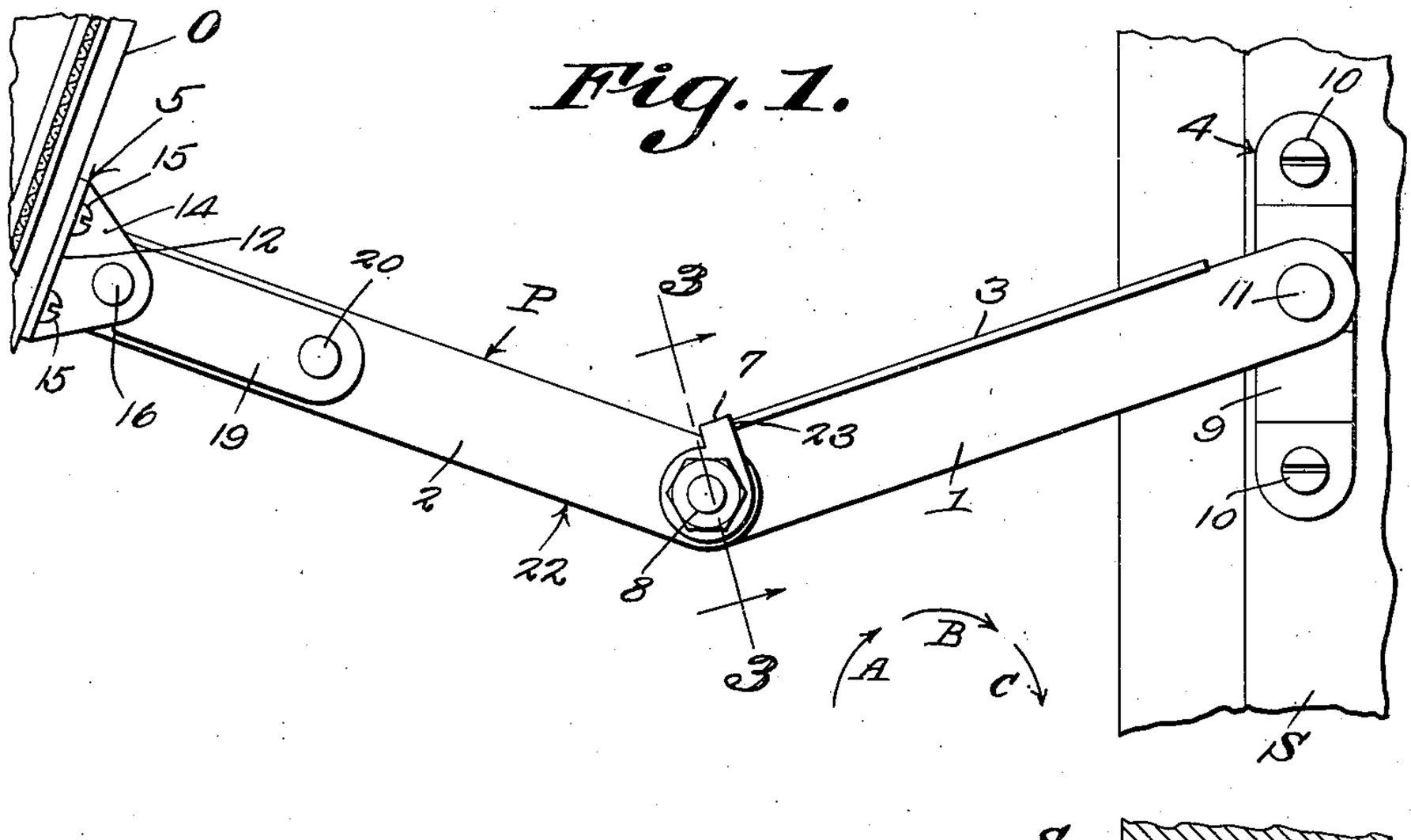

Fig. 1.

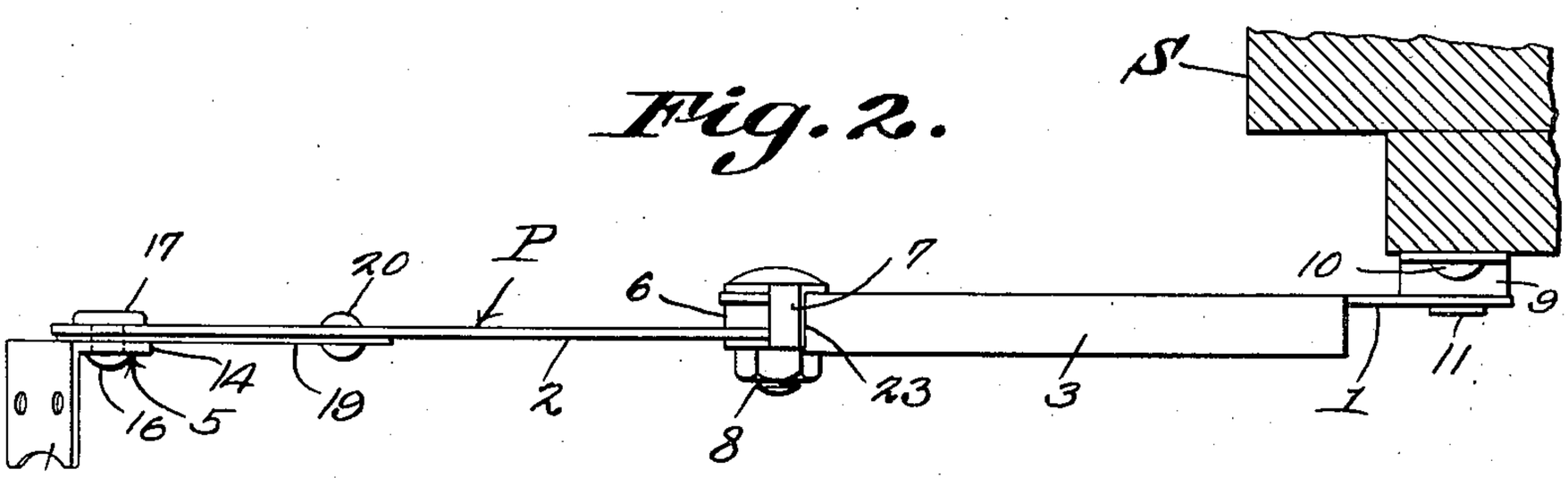

Fig. 2.

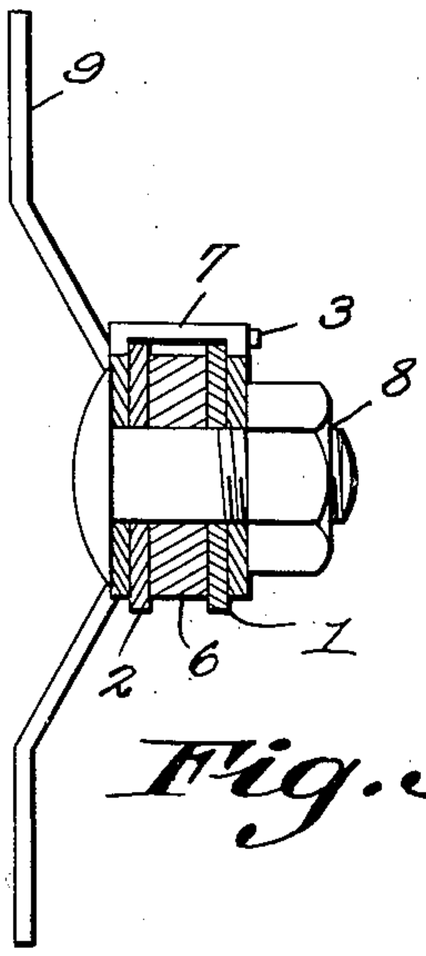

Fig. 3.

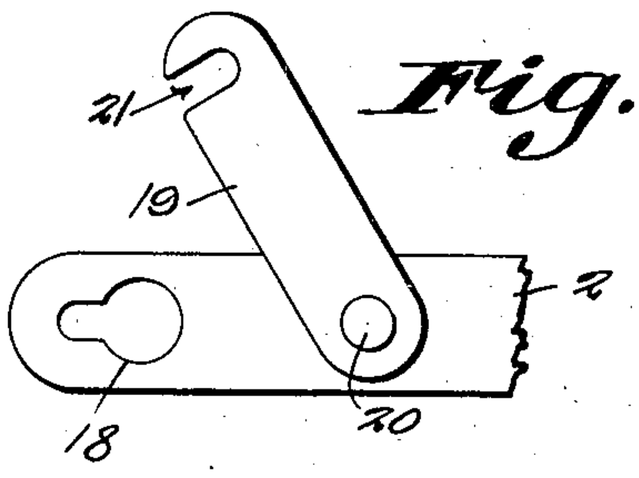

Fig. 4.

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Patented Oct. 25, 1949 2,486,218

UNITED STATES PATENT OFFICE

2,486,218

FOLDABLE PROP

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Application November 9, 1944, Serial No. 562,719

1 Claim. (Cl. 292—263)

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The device forming the subjecting matter of this application is a foldable prop, intended primarily to be employed for holding a storm sash or a screen in open position, but the invention is capable of use as a table leg prop and in connection with foldable shelves and the like.

Assuming that the device is used to regulate the amount that a storm sash or screen is opened with respect to a window frame, one object of the invention is to provide novel means for regulating or limiting positively the amount that the sash or screen is opened.

Another object of the invention is to supply novel means whereby the screen or storm sash is held positively in a closed position.

Another object of the invention is to provide, upon one of the constituent links of the prop, a lateral flange which exercises a two-fold function, in that it cooperates with a stop, to terminate positively, a downward folding movement of the constituent links of the prop, the flange serving also to dispose the links side by side, so that they may be swung downwardly, as one piece, to locking position.

Within the scope of what is claimed, the structure described and shown may be changed without departing from the spirit of the invention.

In the accompanying drawing:

Figure 1 shows, in elevation, a device constructed in accordance with the invention, the closure being in open position.

Figure 2 is a top plan.

Figure 3 is a transverse section on the line 3—3 of Figure 1.

Figure 4 is a fragmental elevation showing a portion of one of the links and the latch which is pivoted thereunto.

The device forming the subject matter of this application is a foldable prop P, comprising a first link 1, having a lateral, reinforcing flange 3 at its upper edge and extended throughout the major portion of the length of said edge. A means 4 is provided for connecting the outer end of the first link 1 pivotally with a support S. In the present embodiment of the invention, the support S is a window frame.

A second rigid link 2 is provided. The inner ends of the links 1 and 2 are overlapped. A means 5 is provided for pivotally connecting the outer end of the second link 2 with an object O to be propped. In the embodiment under consideration the object O is a storm sash or a window screen.

A friction brake washer 6, made of fibre or the like, is disposed between the overlapped ends of

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the links 1 and 2. An inverted U-shaped stop 7 is supplied, and within the stop the overlapped ends of the links 1 and 2 are received.

A clamping and pivot member 8 is supplied. It may be a bolt and nut. The clamping and pivot member 8 extends through opposite portions of the stop 7, the overlapped ends of the links 1 and 2, and the washer 6. The clamping and pivot member 8 constitutes adjustable means for causing the overlapped ends of the links 1 and 2 to grip the washer 6, whereby the links will be held frictionally at adjusted angles with respect to each other.

The inner end portion 23 of the flange 3 and the adjacent portion of the upper edge of the second link 2 engage opposed edges of the stop 7 to limit, positively, the downwardly knuckling of the links 1 and 2 on the clamping and pivot member 8.

It will be noted that the intermediate portion of the stop 7 is offset and is of less width than the remaining portion. Thus it offers minimum resistance to the relative movement of the links and permits them to swing closer together than would be possible should a wider member be located at this point.

By an instrumentality not shown, the storm sash O is hingedly connected with the support S at the upper ends of these parts for inward and outward swinging movement. When the parts are arranged as shown in Figure 1, the stop 7 functions positively to prevent the sash O from swinging inwardly beyond the position depicted. The prop P may be knuckled upwardly, the stop 7 no longer cooperating with the end edge 23 of the flange 3 and the upper edge of the link 2 to hold the sash O against swinging inwardly; the friction office of the washer 6 holds the links 1 and 2 at an angle other than that shown at Figure 1, the angle between the sash O and the window frame or support S being changed accordingly.

Respecting the means 4 whereby the outer end of the link 1 is pivotally assembled with the support S, that means may embody a bracket 9, attached by securing elements 10 to the support S, and a pivot element 11 carried by the bracket and engaged with the outer end of the link 1.

The means 5 for pivotally assembling the outer end of the link 2 with the sash O comprises an angle bracket 12, having an outstanding flange 14, the angle bracket being attached by securing elements 15 to the part O.

A pivot element 16, such as a rivet, is mounted, preferably fixedly, in the outstanding flange 14 of the angle bracket 12, and is provided with an

enlarged head 17, spaced from the flange 14. The link 2 has a key hole slot 18. The head 17 of the pivot element 16 may be passed through the enlarged part of the key hole slot 18, the link 2 being moved longitudinally until the shank of the pivot element is in the reduced portion of the key hole slot. A latch 19 is pivoted at 20 to the link 2 and has a notch 21. The latch 19 is swung until the shank of the pivot element 16 is received in the notch 21, and then the pivot element cannot escape from the link 2.

When it is desired to stow the window sash O, the latch 19 is moved to the position of Figure 4, and the pivot element 16 may be disengaged from the key hole slot 18. The prop P remains assembled with the support on frame S until it is desired to replace the sash O in operative position.

The prop P is made in duplicate as rights and lefts, two props preferably being used in connection with each sash O.

The device is so constructed that it will permit a ready change from a screen to a storm sash at the will of an operator. The prop P remains connected to the support S, and it is only necessary to provide upon the cash or screen frame O the simple structure embodying the angle bracket 12 and the pivot element 16.

The links 1 and 2 are foldable upwardly, as indicated by the arrow A, laterally as indicated by the arrow B, and downwardly as indicated by the arrow C, until they depend from the pivot element 11. The lower edge 22 of the second link 2 engages the flange 3, the links 1 and 2 then being swung downwardly, the axis of the pivot elements 16 and 11 being in alinement and the frame O being retained in closed position.

The operation of the device has been set forth in connection with the description of the various parts, and a recapitulation at this point would constitute no more than a needless repetition.

What is claimed:

A prop for storm windows or the like including a link, a flat longitudinal flange thereon, a second link lapping at one end an end of the first link, a pivot element connecting the lapping ends, a friction washer interposed between the lapping ends and mounted on the pivot element, and means carried by the pivot element for limiting relative movement of the links in one direction and for self-adjustment relative to the links for absorbing thrusts therefrom, said means including a substantially U-shaped washer having a flat intermediate bridge portion overlying the lapping ends and friction washer, said U-shaped washer being mounted on and having its bridge portion tangentially offset from the pivot element for movement of the bridge portion into the plane of the flange on movement of the links in said direction, whereby to bring one side of the bridge portion into engagement with an end of the flange to provide a straight extension of the flange adapted to engage the other link.

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