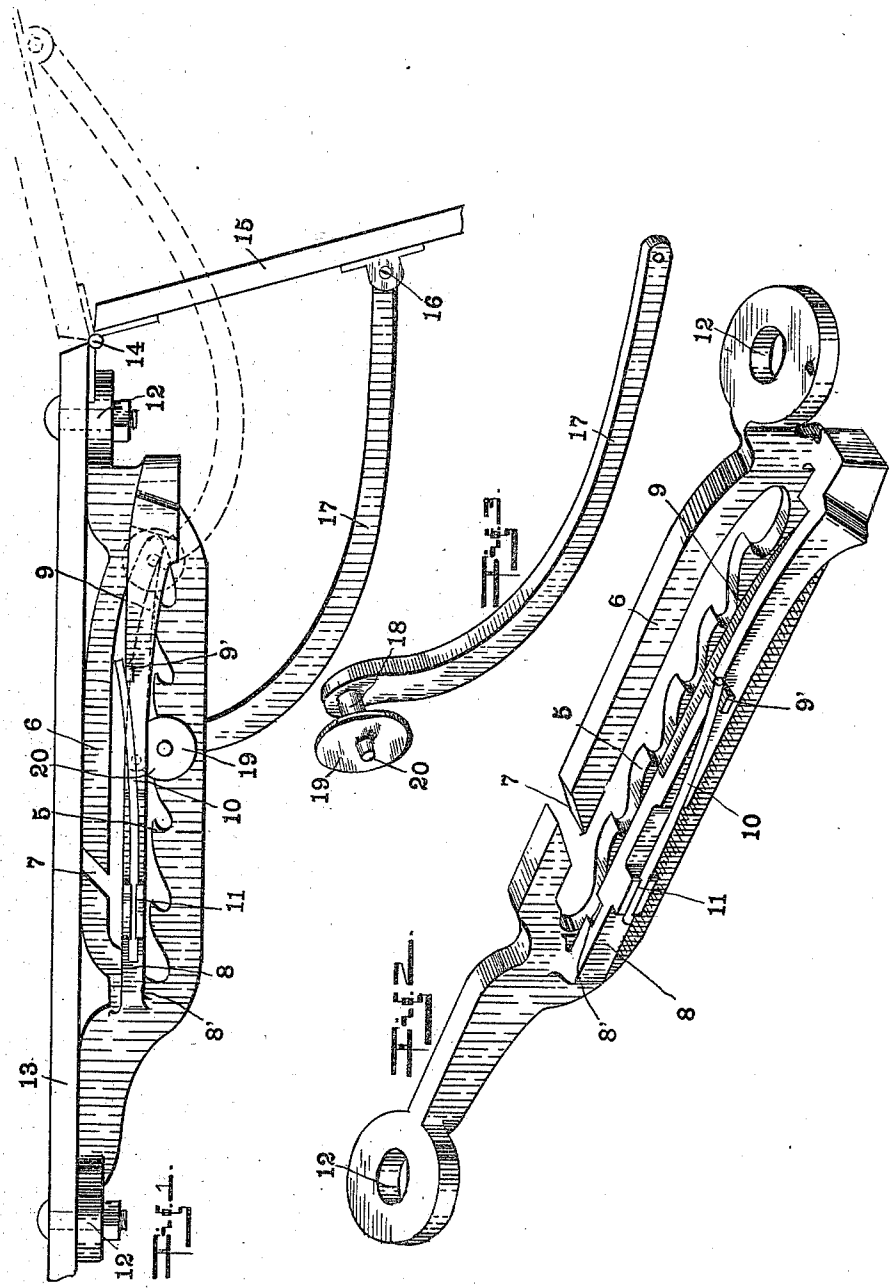
No. 734,757. PATENTED JULY 28, 1903.

F. A. SCHUEHLE & H. K. HORN.

AUTOMATIC HINGED LEAF SUPPORT.

APPLICATION FILED SEPT. 15, 1902.

NO MODEL. 2 SHEETS—SHEET 1.



Witnesses
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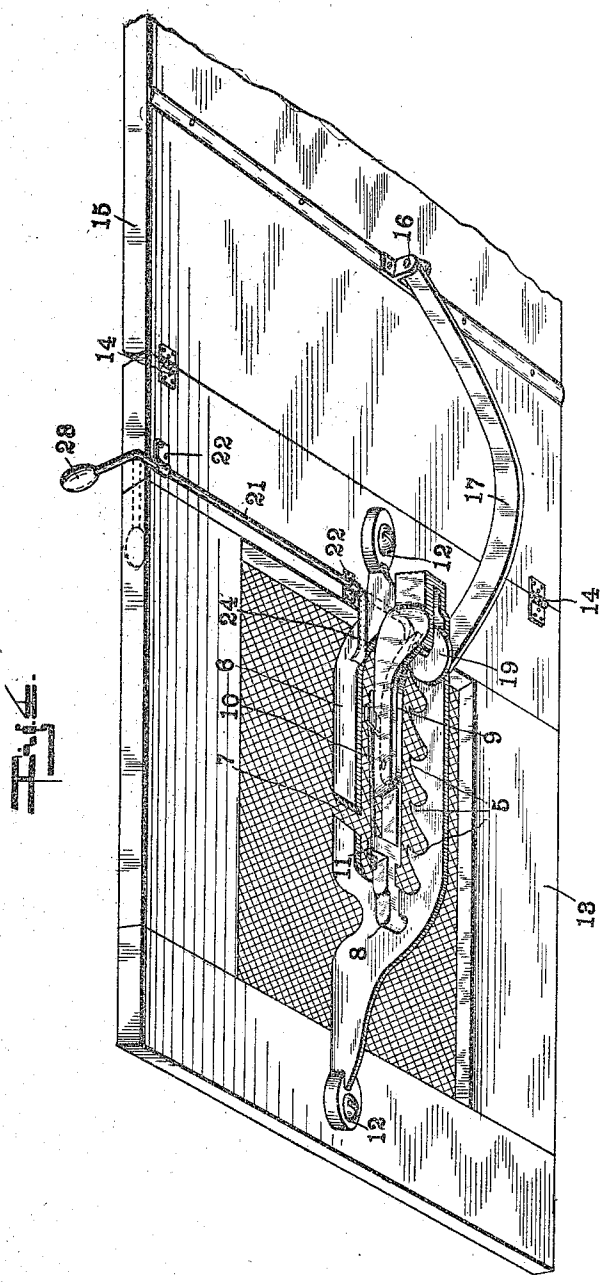
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NO MODEL

2 SHEETS—SHEET 2.

Fig. 5.



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UNITED STATES PATENT OFFICE.

FREDERICK A. SCHUEHLE AND HERMAN K. HORN, OF INDIANAPOLIS, INDIANA, ASSIGNORS TO THE PIEL BROS. MNFG. CO., OF INDIANAPOLIS, INDIANA, A CORPORATION OF INDIANA.

AUTOMATIC HINGED-LEAF SUPPORT.

SPECIFICATION forming part of Letters Patent No. 734,757, dated July 28, 1903.

Application filed September 15, 1902. Serial No. 123,384. (No model.)

To all whom it may concern:

Be it known that we, FREDERICK A. SCHUEHLE and HERMAN K. HORN, citizens of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Automatic Hinged-Leaf Supports, of which the following is a specification.

The object of our invention is to provide a neat and efficient adjusting mechanism by means of which a hinged leaf may be adjusted with relation to a stationary support and the position of which may be varied by a mere swinging of the hinged part without the necessity of manipulation of the several parts of the adjusting mechanism.

A further object of our invention is to so construct the adjusting mechanism that it will be composed of a minimum number of parts easily assembled and when assembled be so connected that the parts cannot become misplaced.

A further object is to provide simple means by which the leaf may be locked in one position.

The accompanying drawings illustrate our invention.

Figure 1 is a side elevation. Fig. 2 is a perspective of the rack. Fig. 3 is a perspective of the link connected at one end to the swinging portion and engaging the rack at the other end, and Fig. 4 is a perspective showing the device attached and also showing the locking means.

In the drawings figure 3 illustrates the rack portion of our device, said portion consisting of a main casting having formed thereon ratchet-teeth 5, over which projects a guard-arm 6, said guard-arm being cut in two at one point to provide an entrance-slot 7. Arranged adjacent ratchet-teeth 5 and parallel therewith is an arm 8, to which is pivoted a pawl 9, the forward or free end of which rests adjacent the last incline of the ratchet-teeth 5. (See dotted lines, Fig. 1.) Pawl 9 is yieldingly held in normal position by a small spring 10, secured at one end in a slot 11, formed in bar 8, and in the other end resting upon a finger 9′, carried by the pawl 9. The rack just described is provided at either end with suitable bolt-eyes 12, by which it may be secured to a platform 13—such, for instance, as the bottom of a go-cart, for which the mechanism is especially designed, although not necessarily limited to such use. Hinged at 14 to the forward end of platform 13 is a swinging portion or hinged leaf 15, to which is pivotally connected at 16 the link 17, which at its rear or free end is provided with a transverse pin 18. Formed at the outer end of pin 18, which is of a length slightly greater than the thickness of the ratchet-teeth 5, is a disk or head 19, and projecting from the outer face of said disk or head is a teat or lug 20. Arm 8 lies to one side of the plane of one face of arm 6 a distance slightly greater than the thickness of disk 19, but less than the distance between the inner face of said disk and the outer end of the lug 20. In order to assemble the parts, therefore, pin 18 of link 17 is passed down through the slot 7 and then moved to the rear until the lug 20 reaches the slot 8′, formed in the arm 8, whereupon the end of the link may be dropped down until its pin 18 comes into engagement with the teeth of the ratchet and lug 20 lies beneath bar 8. In this position the forward end of link 17 is pivotally connected at 16 to swinging leaf 15 and forms a strut to hold said leaf in adjusted position. Leaf 15 may be thrown up, and by such movement pin 18 is drawn forward over the teeth of the ratchet, and when it reaches the last incline, at about the time when the leaf is in its farthest upward position, lug 20 comes into engagement with pawl 9, beneath the same, and by displacing the pawl moves out from under the same, the pawl being immediately returned to normal position by spring 10 and thus forming a track over which lug 20 may be drawn, the swinging leaf dropping freely about its pivot and forcing the free end of the link 17 to the rear until lug 20 reaches slot 8′, when it drops again into engagement with the ratchet-teeth 5. Disk 19 is of such diameter that it prevents any lateral displacement of the free end of the link 17 even though the link be twisted.

In order to lock the hinged leaf securely in

its upper position, we journal a lock-shaft 21 in suitable brackets 22 on the under side of the platform 13. Shaft 21 is provided at one end with a suitable operating-arm and handle 23 and at the other end with a locking arm or finger 24, which may be thrown down into engagement with the pawl 9, so as to prevent sufficient movement thereof to allow pin 18 to be drawn over the ratchet-teeth 5 adjacent thereto. As a consequence displacement of the pin 18 in these teeth and consequent change of position of the hinged leaf 15 may be prevented so long as the locking-finger remains in the position shown in dotted lines in Fig. 4.

We claim as our invention—

1. An adjusting mechanism consisting of a ratchet-bar, a guard-bar extending thereover, a second guard-bar arranged alongside the ratchet-bars, out of the plane thereof, and having a slot at one end, a pawl arranged at the opposite end of said bar with its free end toward one end of the ratchet-bar; a link provided with a pin arranged to engage the ratchet, and a pin carried by the link to engage the guard-bar and pawl.

2. An adjusting mechanism consisting of a ratchet-bar, a guard-bar extending thereover and having a transverse slot, a second guard-bar arranged alongside the ratchet-bar, a pawl carried by the second bar with its free end toward one end of the ratchet, a link provided with a pin arranged to engage the ratchet, a guard carried by the pin and adapted to lie between the ratchet-bar and first guard-bar on one side and the second guard-bar on the other side, and a lug carried by the link and arranged to engage the second guard-bar and the pawl, substantially as and for the purpose set forth.

3. An adjusting mechanism consisting of a ratchet-bar, a pawl arranged adjacent one end thereof, a link carrying a pin arranged to engage said ratchet and pawl, and means for preventing movement of the pawl whereby the link-pin may be held between said pawl and the ratchet-bar.

4. An adjusting mechanism consisting of a ratchet-bar, a guard-bar extending therefrom, a second guard-bar arranged alongside the ratchet-bar and having a slot at one end, a pawl arranged at the opposite end of said bar with its free end toward one end of the ratchet-bar, a link provided with a pin arranged to engage the ratchet, a pin carried by the link to engage the guard-bar and pawl, and a lock-shaft provided with a locking-finger adapted to be thrown into engagement with the pawl to prevent its operation.

5. An adjusting mechanism consisting of a ratchet-bar, a guard-bar extending thereover and having a transverse slot, a second guard-bar arranged alongside the ratchet-bar with its free end toward one end of the ratchet, a link provided with a pin arranged to engage the ratchet, a guard carried by the pin and adapted to lie between the ratchet-bar and first guard-bar on one side and the second guard-bar on the other side, a lug carried by the link and arranged to engage the second guard-bar and the pawl, and a lock-shaft provided with a locking-finger adapted to be thrown into engagement with the pawl to prevent its operation.

In witness whereof we have hereunto set our hands and seals.

FREDERICK A. SCHUEHLE. [L. S.]
HERMAN K. HORN. [L. S.]

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