(No Model.)

W. H. GLENDENNING.

THILL SUPPORT.

No. 414,520. Patented Nov. 5, 1889.

Fig. 1.

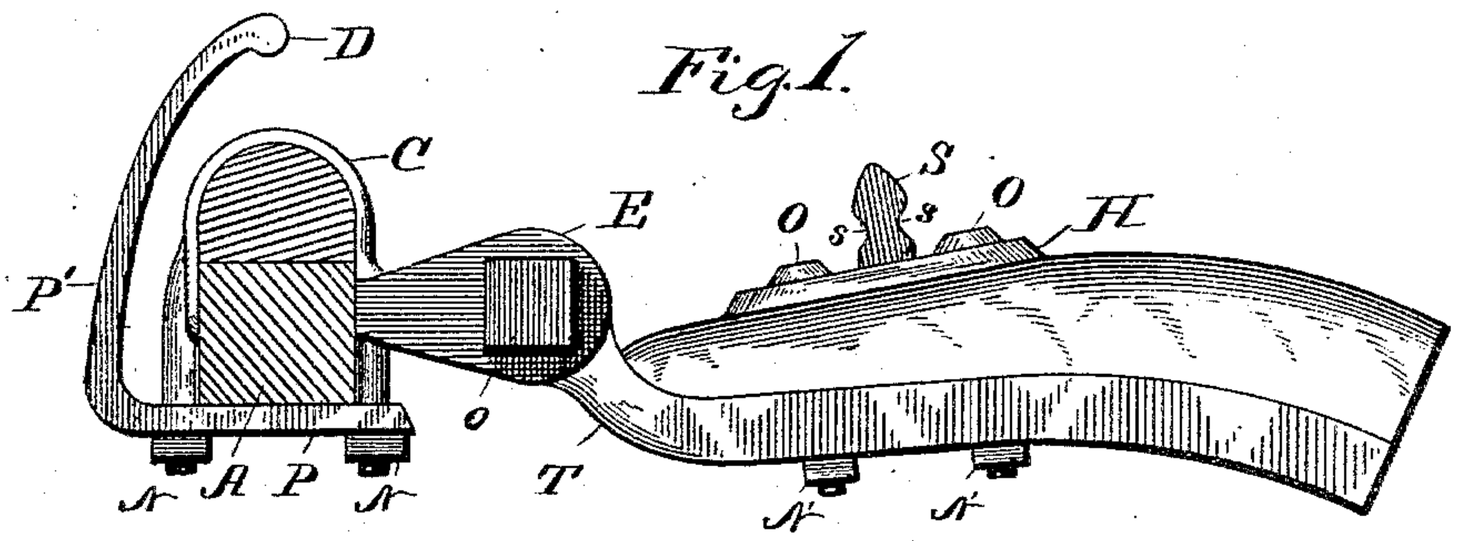


Fig. 2.

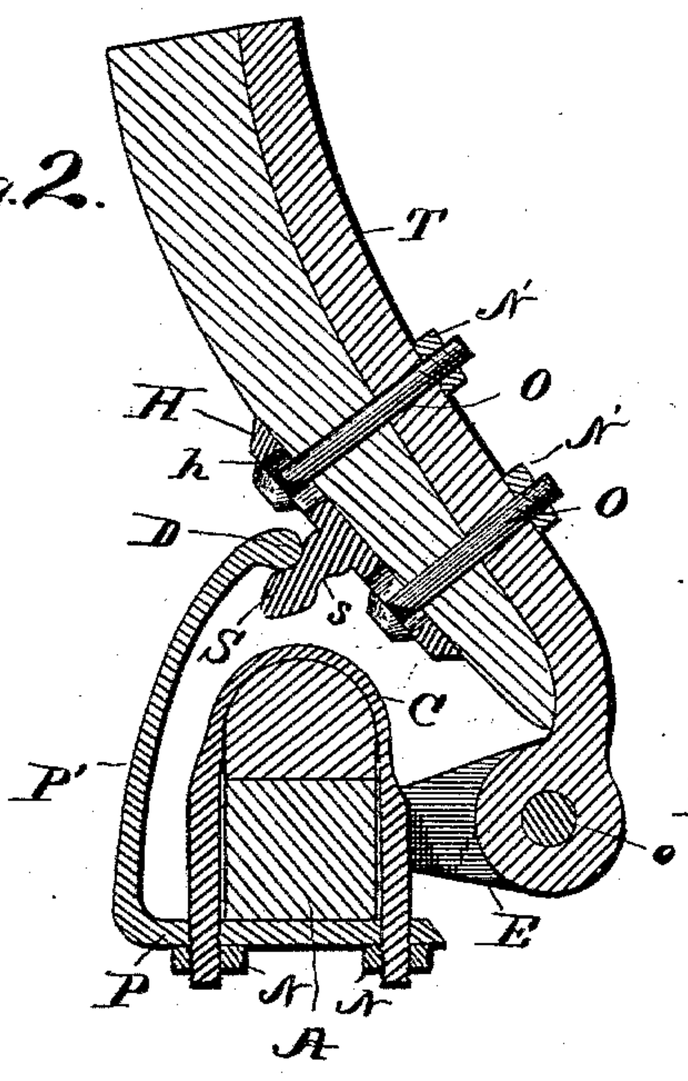


Fig. 3.

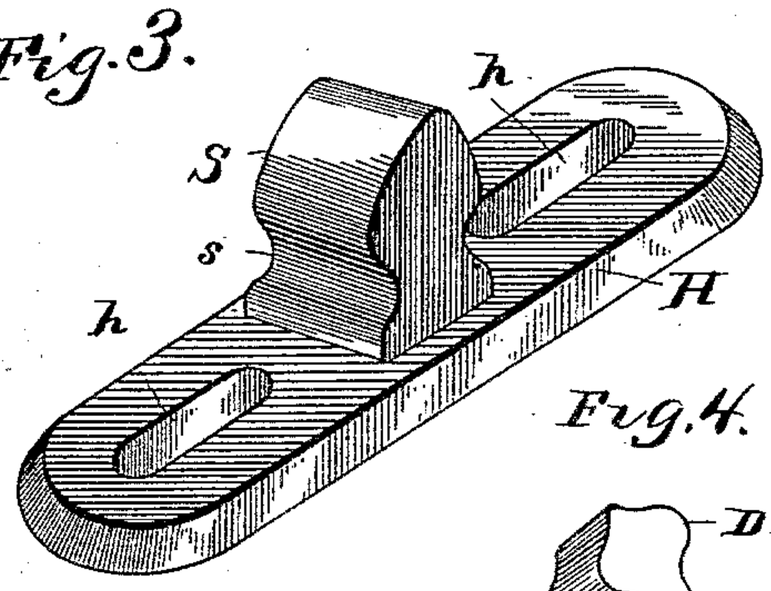


Fig. 4.

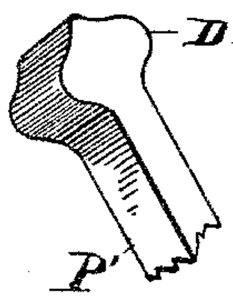
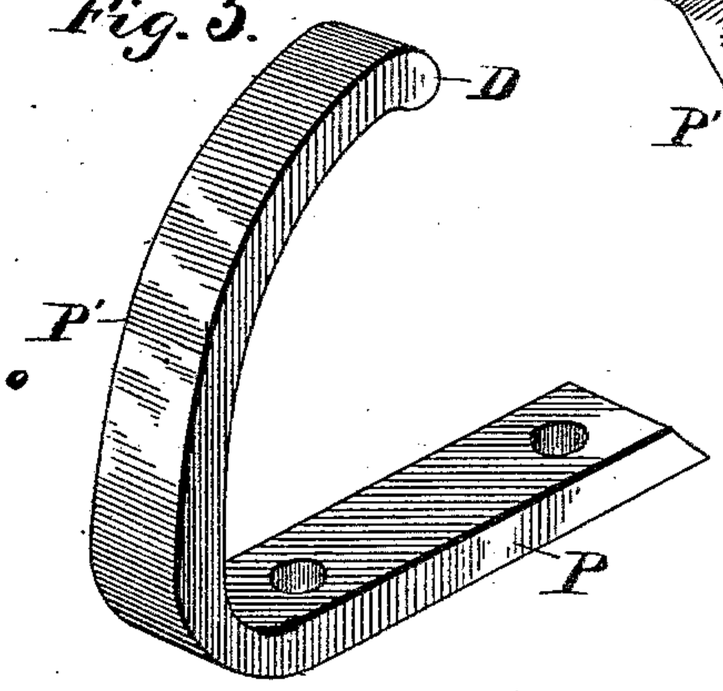


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM H. GLENDENNING, OF IRONTON, OHIO.

THILL-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 414,520, dated November 5, 1889.

Application filed May 17, 1889. Serial No. 311,131. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. GLENDENNING, a citizen of the United States, residing at Ironton, in the county of Lawrence and State of Ohio, have invented a new and useful Thill-Support, of which the following is a specification.

This invention relates to thill-supports of that class in which a spring-arm is attached to the front axle and engages with a suitably-shaped headed plate carried by the thill, the object being to accomplish the supporting of the shafts when desired, all as will be readily understood from the following specification.

Heretofore thill-supports have been constructed with two headed spring-arms, one carried by the thills and the other by the axle; but their means of connection to their supporting parts were inconvenient and expensive, and the arms themselves stood in positions where they were not only dangerous to the user, but where they were liable to catch the tail of the horse or the lines or other free and swinging parts.

The object of the present invention is to overcome the previously-existing objections and at the same time to construct a device which shall be inexpensive in manufacture and neat and serviceable in use. This object I accomplish by means of the mechanism illustrated in the accompanying drawings and described in the following specification.

In the said drawings, Figure 1 is a side elevation of the front axle of a vehicle with its thills down, my support being shown as applied thereto. Fig. 2 is a central vertical section of the same, the thills being shown in their raised position. Fig. 3 is an enlarged perspective view of the headed plate, and Fig. 4 is a detail view of the clip-plate. Fig. 5 is a detail view representing a modification.

The same letters of reference are applied to corresponding parts throughout the drawings and specification.

Referring by letter to the said drawings, A represents the front axle, upon which is mounted a clip C, having the usual forwardly-projecting ears E, between which the rear ends of the thills T are pivoted by bolts *o* in the well-known manner. The clip-plate P below the axle in the present instance is continued upwardly, as at P′, from its rear end, and its extremity is provided with a head D, for a purpose to be hereinafter set forth. If desired, the plate P′ may be separate and independent of the clip-plate P, and may be bent at its lower end so as to pass over said clip-plate, being retained in position by the nuts N on the lower ends of the clip C; but I prefer to construct these two plates P and P′ as above described for obvious saving of expense in their manufacture and time in their application to the vehicle.

The letter H represents a plate secured to the upper face of each of the thills below the heads of the bolts O, which pass therethrough, and which, by the nuts N′, hold said thills and thill-irons together, all as seen in Fig. 2. The bodies of said bolts O pass through longitudinal slots *h* in the body of the plate H, whereby the latter may be adjusted longitudinally of the thills by loosening said nuts N′. The plate H is provided at the center of its upper face with a head S, having its front and rear faces cut away, as at *s*, and within these cut-away portions or one of them the head D on the spring-plate P′ engages when the device is in operative position, as shown in Fig. 2. The said head D is preferably double-sided, as shown in Fig. 4, whereby when one side has become worn it may be reversed to present the other side, though it will be obvious that it may be one-sided, as shown in Fig. 2, and will serve all the purposes desired. In the form illustrated in Fig. 4, the point of the head D, after it has come into engagement with the head S, rests against the inner face of the bolt-head on that side of said head S, whereby a firm and strong connection is maintained between the parts of the device.

The operation is obvious. When it is desired to support the thills, either while the vehicle is in the stable or while the horse is being attached thereto, the thills are raised to their utmost extent and the two heads D and S are brought into contact. The beveled faces thereof engage each other, and the spring-arm P′ is deflected either to the front or to the rear and the parts automatically engage. To detach them, all that is necessary is to exert force sufficient to do so.

It will be obvious to a skilled mechanic that this device is applicable to any vehicle now upon the market and whose parts are of

the ordinary construction; also, that no additional plates or bolts are required to secure it in place. The plate P′ is continued downwardly and forms the clip-plate P below the axle, and the headed plate H is firmly and adjustably secured beneath the heads of the bolts O through the rear end of the thills, and which must necessarily be used to connect the same with the thill-irons in all vehicles.

The object of having the plate H longitudinally adjustable upon the thills is to enable it to be set when its beveled faces or those on the head D become worn, or when the spring-arm P′ grows weak from constant use and is normally deflected from its proper position. If desired, however, the slots *h* in the plate H may be omitted and the same provided merely with holes to receive the bolts O; but I prefer the use of the slots for the purpose set forth. The curved arm P′ stands at the rear of the axle and completely out of the way. The user is safe from becoming impaled thereon in case of a runaway or other accident, and from the fact that it curves forwardly instead of rearwardly, as heretofore, and the reins are not likely to become engaged therewith to the annoyance of the driver.

I claim as the salient points of my invention—

The clip-plate P, secured to the axle and continued upwardly along the rear side and terminating above the top of the axle to form the curved spring-plate P′, having the head D, combined with the plate H, having longitudinal slots *b* at each end and secured adjustably to the thill by bolts, and the rigid outwardly-projecting double-beveled head S between said slots, the face of said head being cut away at *s* and engaging with the head of the spring-plate directly above the top of the axle, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

W. H. GLENDENNING.

Witnesses:
C. O. WOLFE,
GEO. W. KEYL.