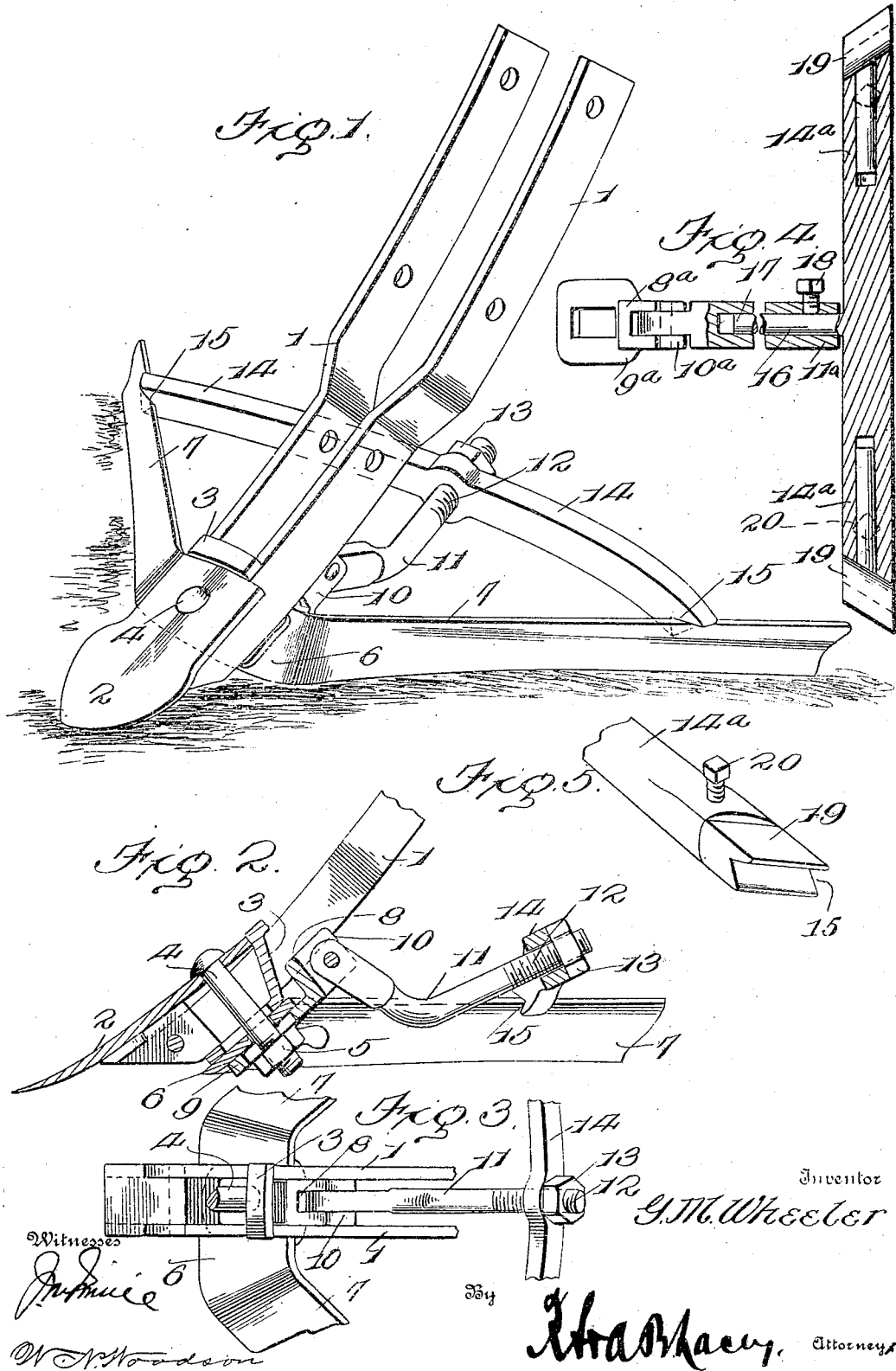


G. M. WHEELER.
SWEEP BRACE FOR PLOWS.
APPLICATION FILED NOV. 16, 1908.

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UNITED STATES PATENT OFFICE.

GEORGE M. WHEELER, OF WINNSBORO, TEXAS.

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Specification of Letters Patent.

Patented Sept. 7, 1909.

Application filed November 16, 1908. Serial No. 462,832.

To all whom it may concern:

Be it known that I, GEORGE M. WHEELER, a citizen of the United States, residing at Winnsboro, in the county of Wood and State of Texas, have invented certain new and useful Improvements in Sweep-Braces for Plows, of which the following is a specification.

It is well known that while among farm-working tools and implements, the plow point, known as the heel sweep, is practically indispensable, yet it has many disadvantages in that the sweep itself is liable to be bent out of shape or broken in two at its apex where it is fastened to the footpiece of the stock, this being the weakest point of the sweep.

One of the methods heretofore practiced for the purpose of strengthening the sweep and for preventing it from breaking, has been to weld a piece of iron or brace to the wings of the sweep, but this method is obviously disadvantageous in that the brace can only be used on the one sweep to which it has been rigidly connected, and when the sweep finally wears out, the brace must be discarded with it. And it has also been proposed to rigidly secure the brace across the face of a sweep by rivets or the like, but this also has its drawbacks in that if the brace becomes broken, it must be entirely discarded, and also in that a brace of this character, being merely an iron bar, is applicable to only one form of sweep and cannot be used with sweeps in which the wings are disposed at different angles.

The primary object of my invention is a sweep brace for plows, which will not possess the objectionable features above pointed out, but which, on the other hand, will be simple, durable and efficient in construction and operation and which will possess the characteristics of detachability and adjustability so that it may be readily secured to any plow of this character and as easily removed therefrom when the sweep wears out. The said brace also possesses, to a certain extent, the feature of flexibility, as it may be made in two or more parts pivotally or otherwise movably connected together to secure the desired range of adjustability.

With this and other objects in view as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements and combinations

of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention and the merits thereof, and to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a perspective view illustrating my improved brace in applied position; Fig. 2 is a longitudinal sectional view thereof; Fig. 3 is a top plan view of a portion of the device applied; Fig. 4 is a detail view of a modified form, parts being shown in top plan and others in section; and, Fig. 5 is a detail perspective view of one end of the brace of said modified form.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

Referring to the drawing, the numeral 1 designates a plow stock; 2 the plow or point proper; 3 the spacing adjuster designed to prevent any shifting of the plow point; 4 the retaining bolt which extends through the point, spacing adjuster 3, the foot of the plow stock and the plow point 2.

5 designates the nut that is secured on the retaining bolt 4, and 6 designates the sweep which is detachably held in place by the said nut and retaining bolt, the said sweep being provided with the rearwardly extending diverging wings 7.

My improved sweep brace comprises essentially a brace head 8 which is formed with an apertured tongue 9 through which the bolt 4 extends, and which is also formed in the rear of said tongue with spaced ears 10 designed to fit in between the side members of the stock 1 at the foot thereof. A brace-carrying arm 11 is preferably flattened at its front end so as to be received between the ears 10 to which it is pivotally connected to swing about a substantially horizontal axis. The brace-carrying arm 11 is preferably curved, as shown, to secure the desired adjustability, although I do not regard this curved formation of the arm as essential, and the rear end of the arm is threaded, as indicated at 12, a nut 13 working on said threaded portion.

14 designates the brace proper which is formed preferably at its middle with an opening which is positioned over the arm

11 in threaded engagement therewith so as to slide longitudinally and turn axially thereon, and said brace being preferably arched, as shown, to secure additional strength. The brace 14, in operation, extends transversely, as clearly illustrated in the drawing, and is preferably formed at its ends with grooves 15 engaging the edges of the sweep wings 7 so as to securely brace the same and prevent them from being bent inwardly, which would be liable to permanently destroy their proper shape, as well as break them, particularly at the apex.

From the foregoing description, in connection with the accompanying drawing, it is clear that I have provided a simple, durable and efficient construction of sweep brace for plows which may be adjusted both vertically and axially to secure the brace proper in the requisite relation to the sweep, irrespective of the size or type thereof, as the brace proper may be adjusted longitudinally on the arm 11 and held at the proper adjustment by the nut 13, while the pivotal connection of the arm 11 with the head 8, enables the device to be adjusted vertically, according to the particular inclination of the wings of the sweep.

It is to be understood that my invention is not limited to the exact construction and arrangement of parts hereinbefore described, but that various changes may be made in the construction, arrangement and proportions of the parts without departing from the scope of my invention as defined in the appended claims. For instance, a modification of the invention is illustrated in Fig. 1, wherein 8^a designates the head of the brace provided with the tongue 9^a, ears 10^a, and 11^a designates the brace-carrying arm which is pivotally connected at its forward end to the ears 10^a of the head. The rear end of the arm 11^a is formed with a longitudinally extending bore or opening 16 in which the stem 17 of the brace proper 14^a fits, being held at the proper axial and longitudinal adjustment in said opening by means of a set screw 18 working through the rear end of the arm and designed to impinge against the stem 17. In this modification of the invention, the brace proper 14^a is provided at its ends with laterally extensible sections 19 grooved as at 15 to engage the wings of the plow sweep and held at the proper axial and extended adjustment by means of set screws 20, as clearly illustrated in the drawing. It is obvious that this brace may be swung upwardly with equal facility as the brace first described, and that it may be adjusted longitudinally as well as laterally so as to properly engage the particular size or shape of sweep with which it is to be used.

While the opening through the slot 9 to receive the bolt 4 may be of any desired

size or shape, I prefer that it be a longitudinally elongated opening or oblong slot, so that it will allow the tongue to adjust the ears up against the sweep, and hold it steady while in use, it being well known that sweeps vary in size and width at a point back of the opening through which the bolt 4 passes.

Preferably, the ears 10 are designed to fit in between the side members of the stock 1 at the foot thereof thus preventing the arm 11 from turning about and assisting in steadying all parts of the sweep and brace.

It is to be understood that my improved sweep brace will fit and can be used on any plow tool such as a wood foot stock, iron foot stock, cultivator feet, or in fact any kind of a plow stock.

Having thus described the invention, what I claim is:

1. In a device of the character described the combination with a plow stock, a point positioned on said stock, a clamping bolt secured through said stock and said point to secure the same in position, a sweep carried by said bolt and wings rearwardly diverged from said sweep, of a head, ears rearwardly extended from said head, a slotted tongue depended from said head and engaged about bolt, an arm pivotally disposed between said ears, said arm being bent upwardly at its forward end, a brace slidably positioned on said arm and extended laterally therefrom to slidably engage the inner edges of said wings and a nut positioned in threaded engagement upon said arm at the rear end thereof to hold said brace against said wings.

2. A device as specified comprising a head carried at the lower end of a plow stock adjacent the sweep carried thereby, ears extended rearwardly in parallel from said head, an arm pivotally disposed between said ears, said arm comprising two sections positioned in telescopic relation to one another and secured in adjusted position by a set screw, the forward of said sections being bent upwardly at its outer extremity, a brace rigidly mounted upon the rear end of said arm and extended laterally therefrom and slidably mounted engaging portions carried at the opposite ends of said brace for engagement with the inner edges of wings carried by the sweep of a plow, said brace being provided with set screws at its opposite ends for engagement with said slidable portions to secure the same in adjusted position.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE M. WHEELER. [L. s.]

Witnesses:

R. N. ROBERTSON,
J. O. HITT.