K. B. FARIS & J. D. WALKER.

CLAMP.

APPLICATION FILED DEC. 11, 1909.

964,412. Patented July 12, 1910.

Fig. 1.

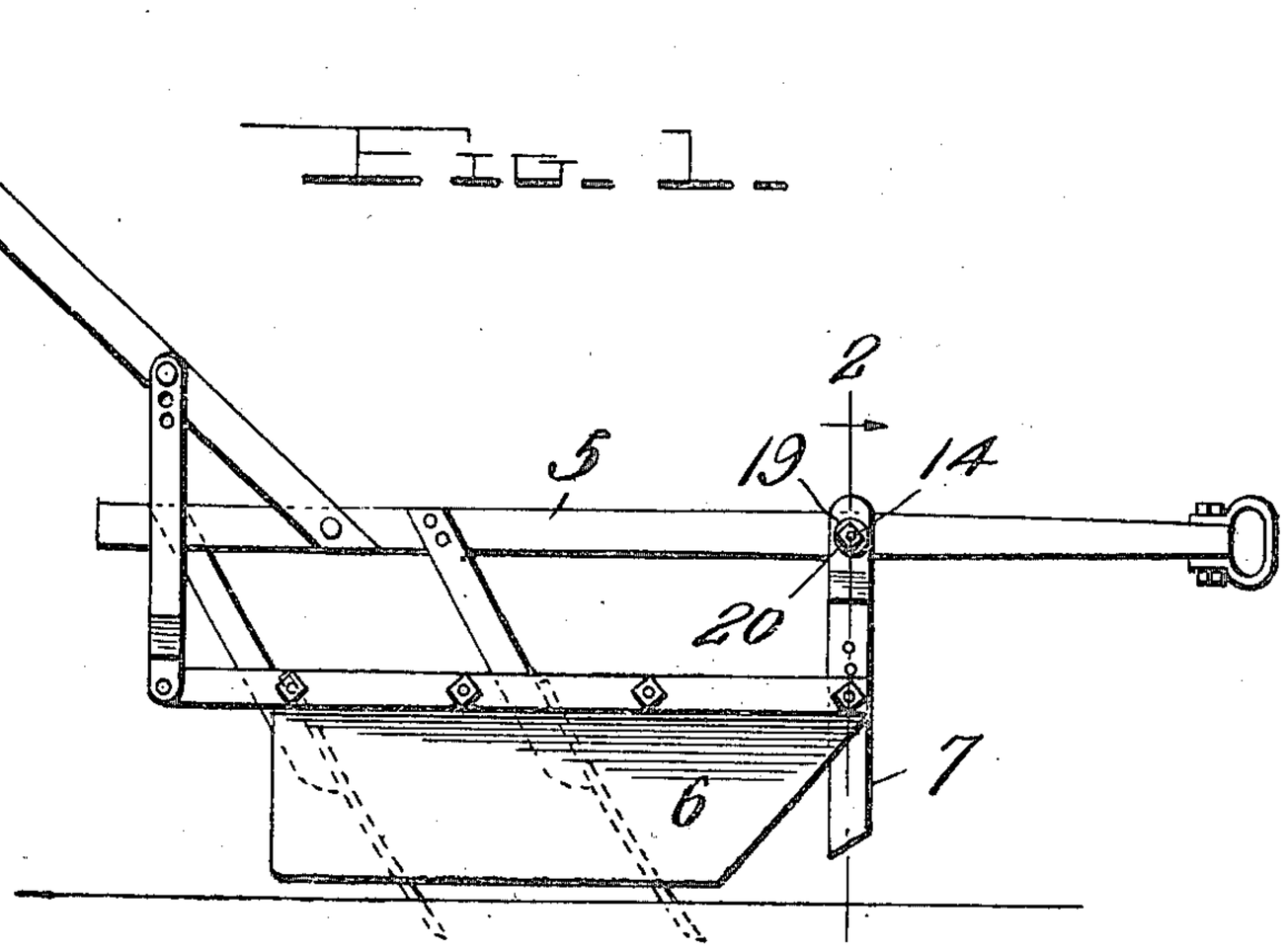

Fig. 3.

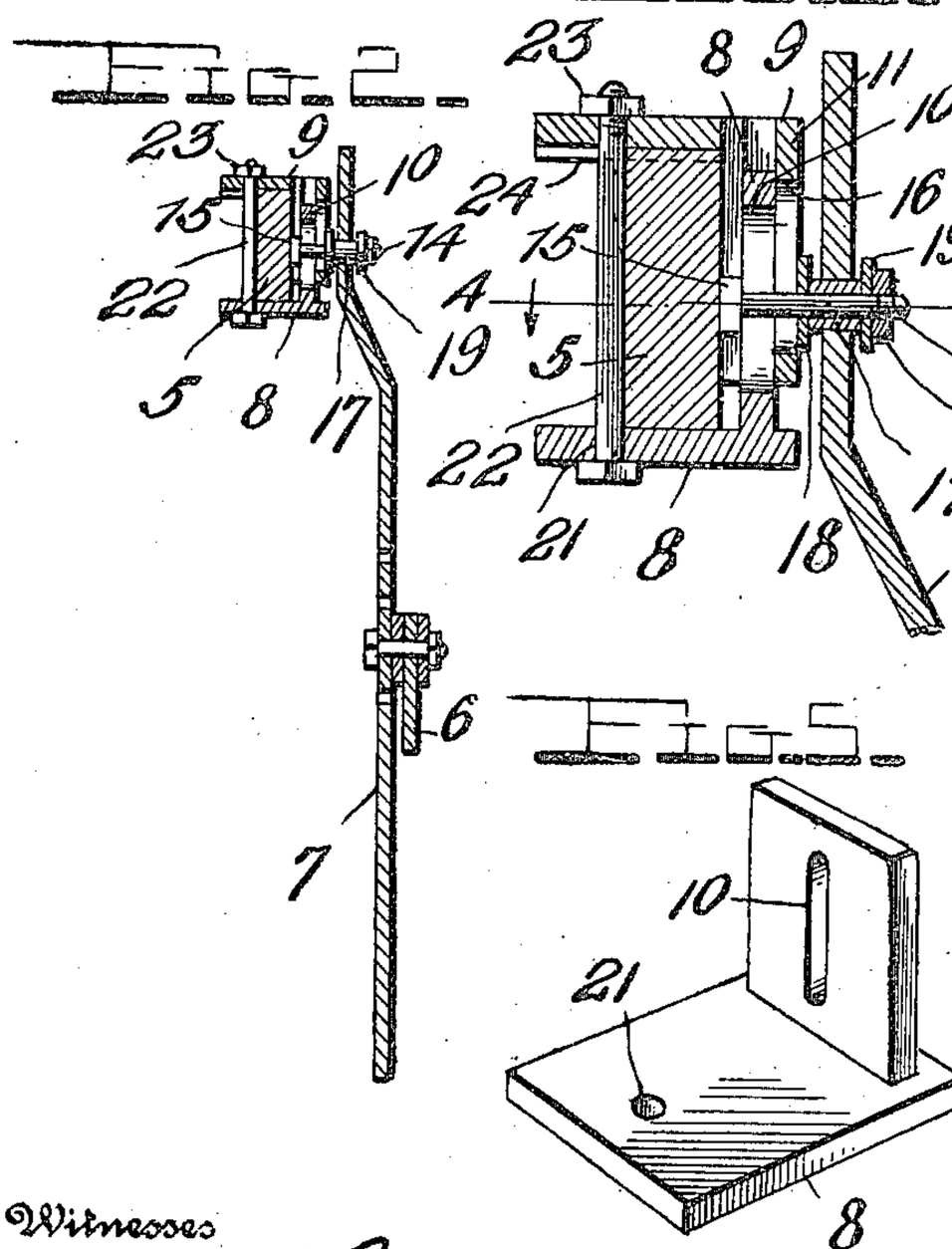

Fig. 4.

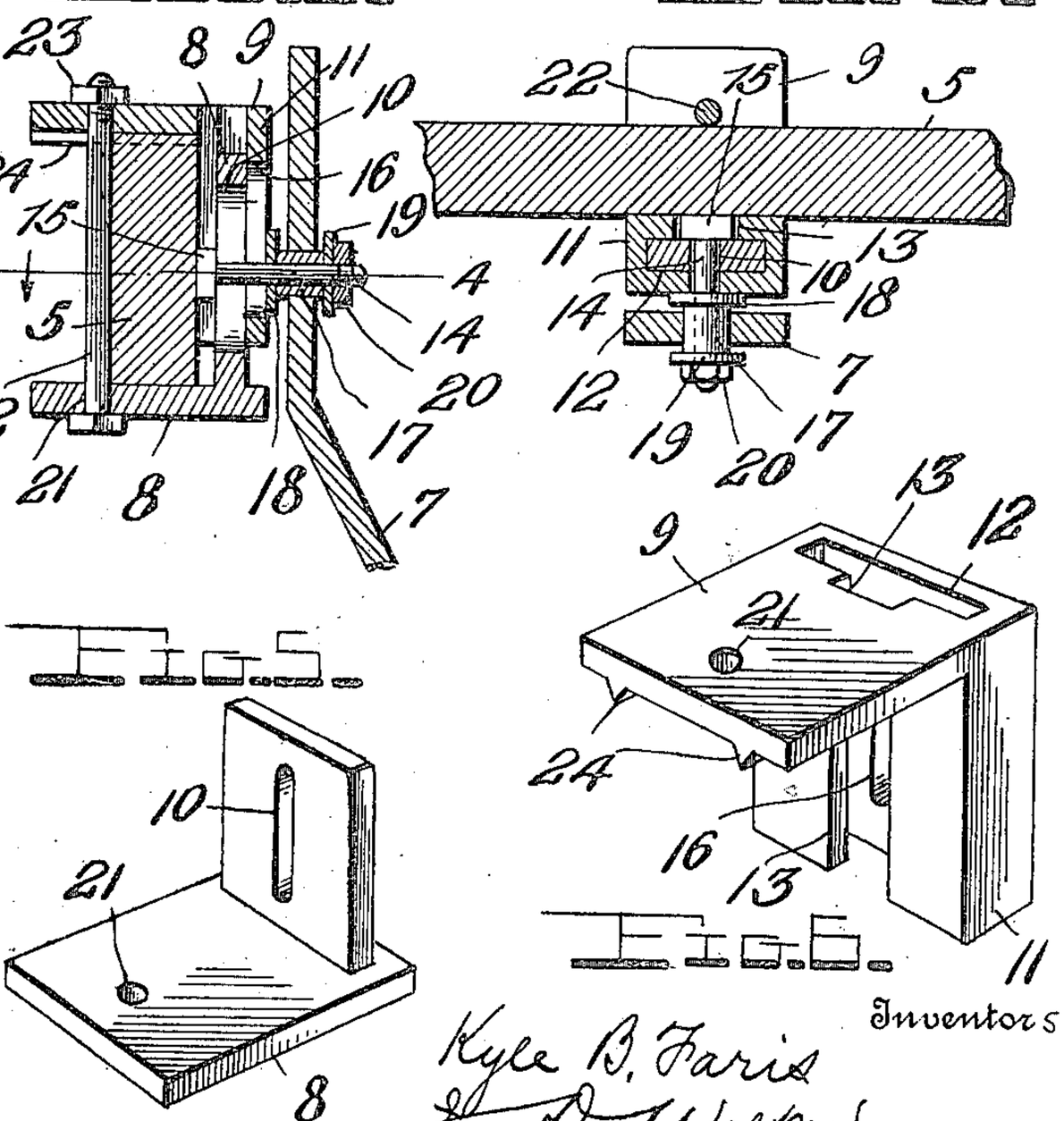

Fig. 2.

Fig. 5.

Fig. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

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CLAMP.

964,412. Specification of Letters Patent. Patented July 12, 1910.

Application filed December 11, 1909. Serial No. 532,631.

To all whom it may concern:

Be it known that we, KYLE B. FARIS and JOSEPH D. WALKER, citizens of the United States, residing at Whitesburg, in the county of Hamblen and State of Tennessee, have invented certain new and useful Improvements in Clamps, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain new and useful improvements in clamps, and more particularly to an improved clamp designed for use in connection with fenders for plows, cultivators, and the like, of that character shown and described in our previous application for patent filed January 16, 1909, Serial No. 472,693, issued November 30, 1909.

The primary object of the present invention is to provide a clamp of the above character which is adapted to pivotally suspend the fender from the plow beam and which is capable of adjustment for engagement upon beams of various sizes, and whereby the hanger bar may also be vertically adjusted to position the fender with relation to the ground surface.

A further object of the invention is to provide a clamp of simple construction which may be easily and quickly adjusted and can be produced at a minimum cost.

With these and other objects in view, the invention consists of the novel construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawing, in which—

Figure 1 is a side elevation illustrating the application of our improved clamp; Fig. 2 is an enlarged transverse section taken on the line 2—2 of Fig. 1; Fig. 3 is an enlarged vertical transverse section of the clamp; Fig. 4 is a section taken on the line 4—4 of Fig. 3; and Figs. 5 and 6 are detail perspective views of the male and female members.

Referring to the drawing 5 indicates the plow beam, 6 the fender, and 7 the front hanger bar. To the upper end of the hanger bar our improved clamp is adapted to be attached whereby the bar may be pivotally carried by the plow beam to suspend the fender in operative position. The clamp comprises the substantially right angle male and female clamping members 8 and 9, respectively. The male member 8 it will be noted is provided in its vertically extending portion with a central longitudinal slot 10. This extension is also reduced in width as clearly shown in Fig. 5 for a purpose which will hereinafter appear. The corresponding angularly extending portion 11 of the female member 9 is considerably increased in thickness with relation to the other arm of said member and is formed between its opposite vertical edges with the opening 12 which extends therethrough and is adapted to receive the extension of the male member 8. In this manner a substantially rectangular casing is provided to receive the reduced portion of the male member and a vertical recess 13 is formed through the inner face of the receiving arm of the female member and communicates with the opening 12 therein. This recess is of greater width than the slot 10 in the male member 8 and is adapted to receive the head 15 of the securing bolt 14. This bolt extends through the slot 10 and through a similar slot 16 co-extensive therewith which is formed in the outer portion of the vertical extension of the female member. This bolt is adapted to be positioned through an aperture in the upper end of the hanger bar 7 and has disposed upon its outwardly extending portion the cylindrical sleeve 17. Between this sleeve and the base of the clamp a washer 18 is disposed and a similar washer 19 is engaged with the outer end of said sleeve.

A nut 20 has threaded engagement upon the end of the bolt and secures the sleeve in position between the washers. The hanger bar 7 is disposed upon the sleeve 17 and has oscillatory pivotal movement thereon in the operation of the plow whereby the fender 6 will swing longitudinally as the ground is worked in the manner and for the purposes set forth in our prior application. The horizontally extending portions of the male and female members are disposed transversely upon the lower and upper edges of the beam 5. These transversely extending portions are each provided adjacent to their ends with an opening 21, said openings being disposed in vertical alinement and adapted to receive the bolt 22 upon the end of which the nut 23 is threaded. This bolt extends upon the inner face of the plow beam and binds the transversely extending por-

tions of the clamping members upon the edges thereof. In order to further overcome any tendency of longitudinal movement of the clamp upon the beam, we preferably provide the underside of the transversely positioned arm of the female member with the V-shaped ribs 24 which are adapted to bite into the upper edge of the beam as the members are clamped thereon and effectually prevent any movement whatever of the clamping member from its adjusted position.

In the operation of the clamp, the nut 20 upon the end of the securing bolt is loosened and the clamping members are adjusted vertically upon each other to space their transversely extending arms to the approximate width of the plow beam. These arms are then placed upon the opposite edges of the beam as above set forth and the nuts 23 are threaded into binding engagement therewith upon the ends of the bolts 22. The hanger bar has of course been previously positioned over the cylindrical sleeve 17 and the nut 20 is then threaded inwardly upon the bolt 15 into binding engagement upon the face of the washer 19. Thus the telescoping extensions of the clamping members are rigidly secured against accidental vertical movement, and a double security is thus provided by the bolts 22 and 15 whereby the inadvertent release of the clamping members is absolutely prevented. If it is desired at any time to adjust the oscillating hanger bar upon the plow beam to position the fender with respect thereto, the securing nut 20 may be loosened and the bolts 15 moved upwardly or downwardly in the alined slots of the male and female members, the head of said bolt moving in the recess 13 in the inner face of the female member. It will be noted that the head of the bolt is disposed entirely within said recess whereby a perfectly flat smooth surface is provided for engagement upon the side of the beam.

From the foregoing it will be seen that we have provided a clamp of comparatively simple construction and one which is admirably adapted for the purpose specified. It will, however, be understood that such a device is applicable to a great number of highly useful purposes, and that we do not restrict ourselves to the particular use herein set forth. For instance, the clamp may be advantageously used for suspending hangers for supporting scaffolds for the use of painters, brick layers, and other mechanics. The device is also susceptible to a great many minor alterations in the form proportion, and details of construction without departing from the spirit or sacrificing any of the advantages thereof.

Having thus described the invention, what is claimed is:

1. A clamp of the character described comprising two angular telescoping members, said members each having one of their arms transversely positioned upon a beam, a clamping bolt extending through the ends of said arms and disposed upon the face of the beam, means for securing said members together and means carried by the beam engaging arm of one of said members whereby longitudinal movement of the clamp upon the beam is prevented.

2. A clamp of the character described comprising two angular members adjustable with relation to each other, means for securing said members in their adjusted position, one arm of each of the members being transversely disposed in engagement with a beam, a bolt removably disposed through the ends of said arms and engaged with the face of said beam, and ribs formed upon the arm of one of said members embedded in the beam, whereby longitudinal movement of the clamp is prevented.

3. The combination of a clamp comprising two angular telescoping members, said members each being provided with a vertical slot, said slots being in alinement and adapted to receive a bolt for movement therein, the head of said bolt being disposed within the inner face of the female telescoping member, means for securing said members in their adjusted position, said bolt being adapted to pivotally suspend a hanger bar therefrom, the corresponding angular arms of said members being positioned upon opposite ends of a beam, one of said arms being provided with substantially V-shaped ribs for engagement therein, and a clamping bolt extending through the ends of said arms and disposed upon the face of the beam.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

KYLE B. FARIS.
JOSEPH D. WALKER.

Witnesses:
FRED ANDERSON,
J. H. HAUN.