No. 620,313. Patented Feb. 28, 1899.

M. V. HANSCOM.

WORK HOLDING STAND OR TABLE.

(Application filed Feb. 28, 1898.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

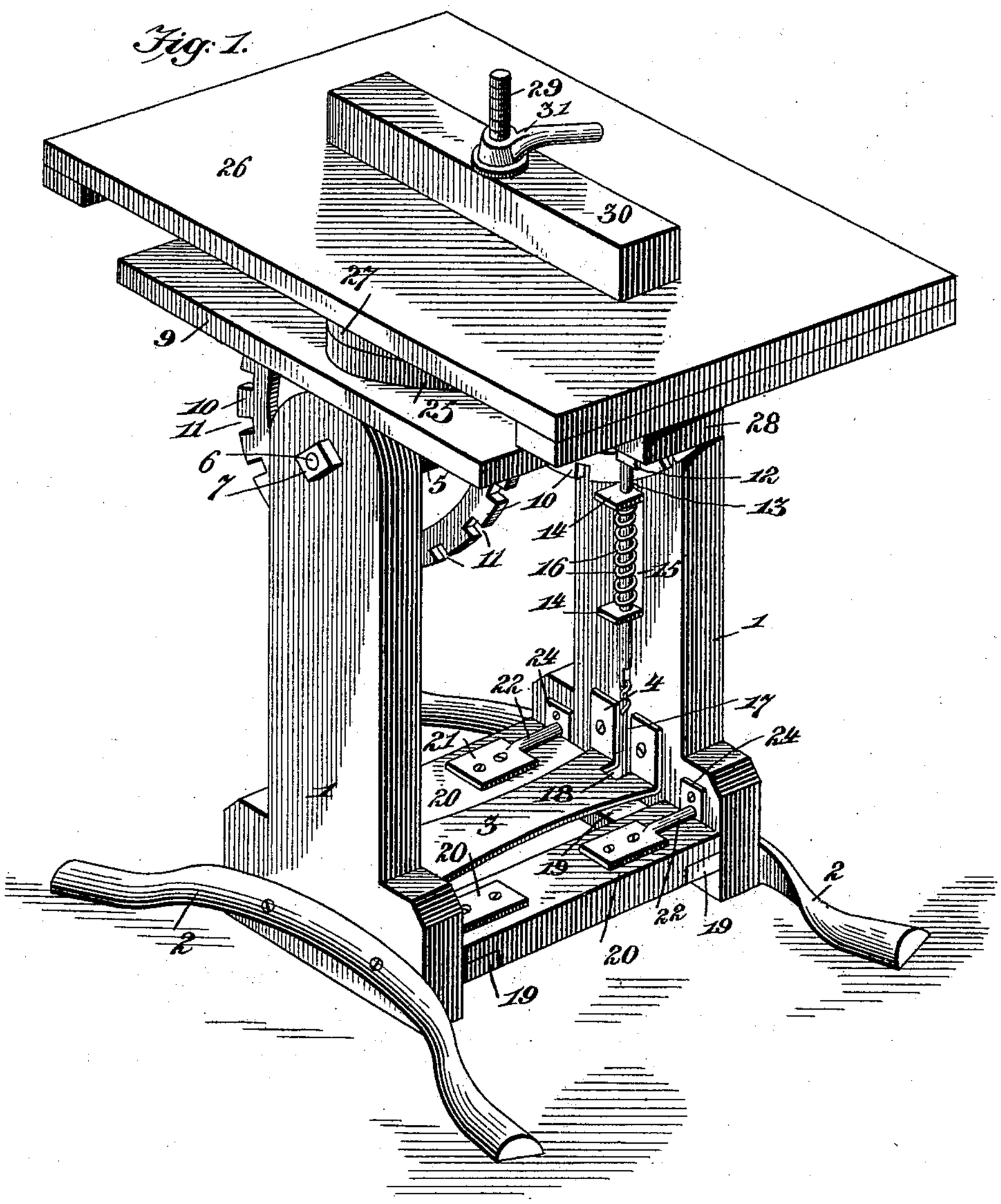
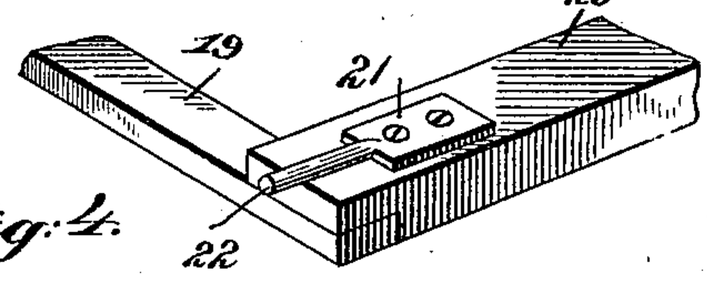


Fig. 4.



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(No Model.) 2 Sheets—Sheet 2.

Fig: 2.

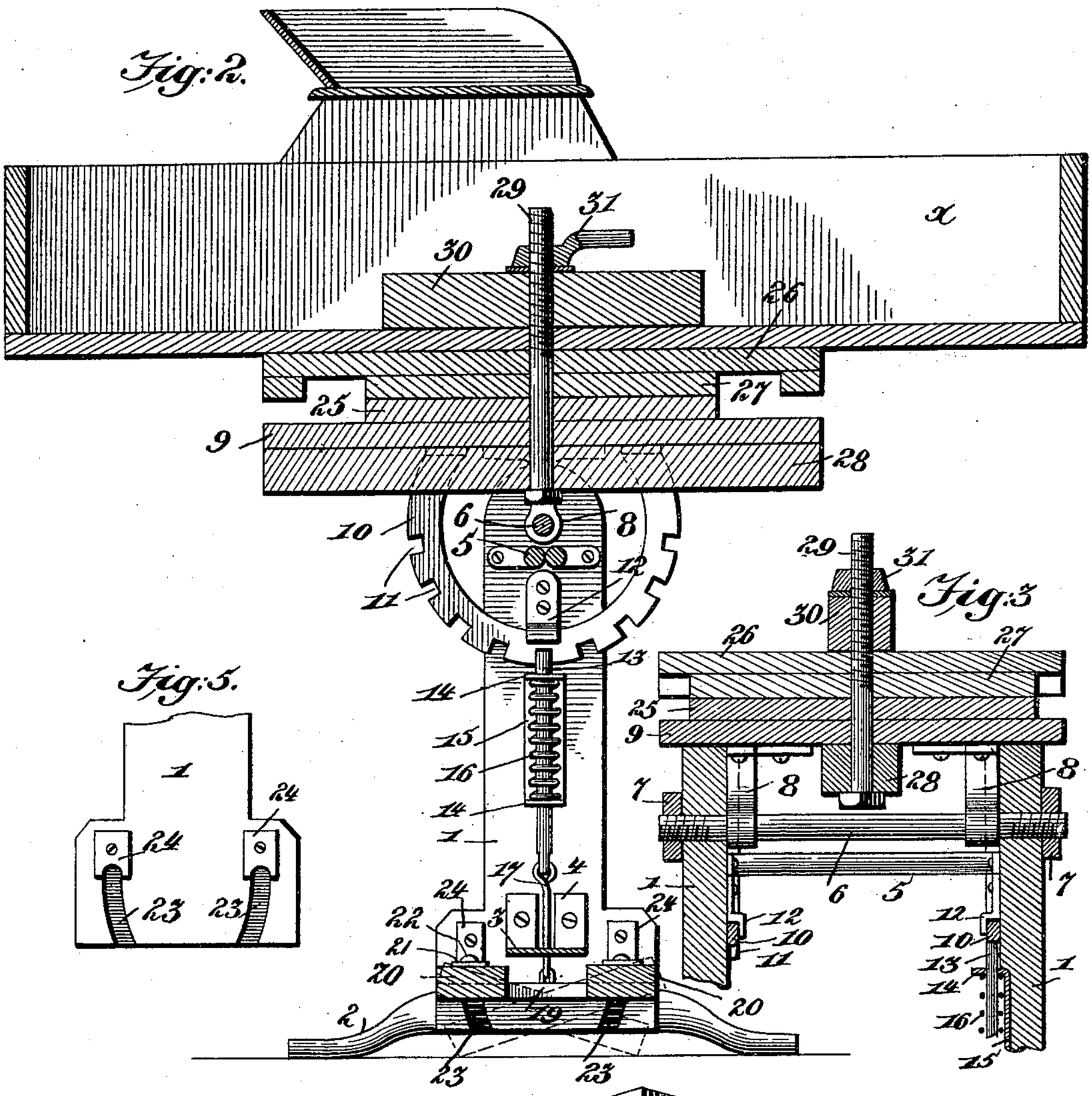
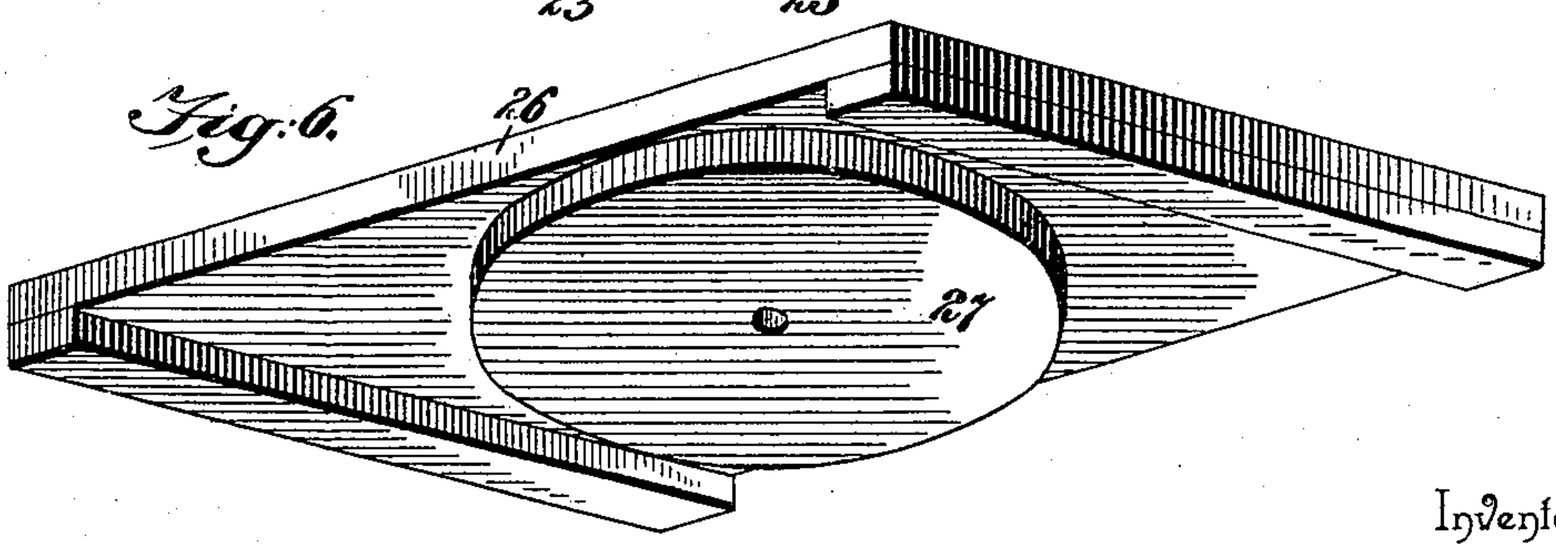


Fig: 3.

Fig: 5.

Fig: 6.



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UNITED STATES PATENT OFFICE.

MYRTLE V. HANSCOM, OF MODOC, INDIANA.

WORK-HOLDING STAND OR TABLE.

SPECIFICATION forming part of Letters Patent No. 620,313, dated February 28, 1899.

Application filed February 28, 1898. Serial No. 672,028. (No model.)

To all whom it may concern:

Be it known that I, MYRTLE V. HANSCOM, a citizen of the United States, residing at Modoc, in the county of Randolph and State of Indiana, have invented a new and useful Work-Holding Stand or Table, of which the following is a specification.

This invention relates to certain improvements in work-holding stands or tables, such as are adapted for use in carriage and wagon factories and shops for holding work during the finishing; and the object of the invention is to provide a device of this character of a simple and inexpensive nature adapted to hold the work in a secure and firm manner and capable of ready adjustment to enable the work to be held in convenient position for the workman.

The invention consists in a work-holding table or stand comprising a frame, a platform adjustable on the frame, mechanism for locking the platform against movement, and a treadle for throwing said mechanism out of operation to permit the platform to be adjusted.

The invention also contemplates certain novel features of the construction, combination, and arrangement of the various parts of the improved table or stand whereby certain important advantages are attained and the device is made simpler, cheaper, and otherwise better adapted and more convenient for use, all as will be hereinafter fully set forth.

The novel features of the invention will be carefully defined in the claims.

In order that my invention may be the better understood, I have shown in the accompanying drawings a work-holding stand or table embodying my improvements, in which drawings—

Figure 1 is a perspective view showing the improved stand or table, and Fig. 2 is a sectional view taken vertically through the stand or table and showing a piece of work in place thereon. Fig. 3 is a fragmentary sectional view taken vertically through the upper portion of the stand or table in a plane at right angles to the plane of the section in Fig. 2. Fig. 4 is a fragmentary perspective view showing one of the pivot pins or lugs of the treadle; and Fig. 5 is a partial elevation of the inner surface of one of the side pieces of the stand or table, showing the guide-grooves in which the pivot-pins of the treadle move. Fig. 6 is a perspective detail view showing the under side of the upper rotative element or member of the work-platform.

The frame of the improved stand or table may be of any desired form. As herein shown, it comprises side pieces 1 1, to the lower ends of which are secured rods 2, the extremities of which are bent downward to form feet adapted to rest on the floor to support the table or stand firmly. The side pieces 1 1 of the frame are connected at their lower ends by means of a cross-piece 3, the ends of which are formed with forks or bifurcations 4, spaced apart, as clearly shown in Figs. 1 and 2, these forks or bifurcations being bent at right angles to the body portion of the cross-piece 3 and being secured to the inner sides of the side pieces 1 of the frame. The side pieces are united at their upper parts by braces 5 5, parallel with each other, said braces being provided with bent ends which are securely bolted to the side pieces, as clearly shown in Figs. 2 and 3.

The upper ends of the side pieces 1 of the frame are made rounded, being curved in the arc of a circle, and beneath said side pieces extends a bar or rod 6, having its opposite ends screw-threaded and passed through openings formed in the side pieces centrally with respect to the rounded upper ends thereof, the threaded extremities of said rod or bar 6 projecting beyond the outer surfaces of the side pieces and being provided with nuts 7, as clearly shown in Figs. 1 and 3. The rod or bar 6 forms an axis at the upper part of the frame of the stand or table whereon the work-platform swings pivotally, said platform having its lower member or body portion 9 provided with depending brackets 8, arranged to embrace the bar or rod 6 at opposite ends thereof inside of the side pieces of the frame and having its side portions arranged to rest upon the curved upper ends of the side pieces 1, as clearly shown in Fig. 3.

At opposite sides of the under surface of the body portion 9 of the work-platform are secured segment-racks 10, concentric with the bar or rod 6 and provided with teeth or notches 11 in their outer faces, said racks being guided

by the engagement with their inner faces of angular guide blocks or pieces 12, secured to the inner sides of the side pieces 1 of the frame, as clearly shown in Figs. 2 and 3. By this construction it will be seen that the work-platform is held to swing pivotally upon the bar or rod 6 at the upper part of the frame of the stand, and when said platform is moved the segments or racks 10 will play through the guide-pieces 12 on the frame, as will be readily understood.

The teeth or notches 11 of the segments 10 are adapted to be engaged by bolts 13, mounted for longitudinal movement in the angular end portions 14 of bearing-plates 15, secured to the inner sides of the side pieces 1 of the frame and provided with springs 16 for holding the bolts normally engaged in said notches or teeth 11. The lower ends of the bolts 13 are connected by means of links 17, which extend down through apertures 18, formed at opposite ends of the cross-piece 3 of the frame between the bifurcations thereof, and are connected to the central parts of the side pieces 19 of the treadle-lever, said side pieces 19 being connected together at their opposite ends by cross-pieces 20, to the upper surfaces of which are secured at opposite ends plates 21, having pivot pins or lugs 22, which extend beyond the ends of the treadle-lever, as shown in the perspective view, Fig. 4, and are adapted for engagement in curved guide-grooves 23, formed in the inner surfaces of the side pieces 1 of the frame at the lower part thereof, as shown in Figs. 2 and 5.

At the upper ends of the guide-grooves 23 are secured wearing-blocks 24, of metal, having notches in their under sides to receive the pivot pins or lugs 22 when the said lugs or pins stand at the upper ends of their respective guide-grooves 23. The treadle-lever extends across the lower part of the frame and is normally held in the position shown in full lines in Fig. 2 by the springs 16, coiled on and connected to the bolts 13 at opposite sides of the frame, the pivot pins or lugs 22 at opposite ends of said lever being engaged with the notches in the under side of the wearing-blocks 24, and when it is desired to release the work-platform, so as to enable the work to be adjusted, so as to stand at a different angle to the horizontal, the operator will press with his foot upon one or the other of the cross-pieces 20 of the treadle-lever, depressing the end of said lever, as shown in dotted lines in Fig. 2, the pivot pins or lugs 22 at the depressed end of the treadle-lever playing in the guide-grooves 23 at that end of the lever, and the pivot pins or lugs 22 at the opposite end of the lever serving as points whereon the treadle-lever swings. By this arrangement it will be seen that the operator may readily shift the angle at which the work is held on the work-platform by merely pressing down with his foot upon that end of the treadle-lever which is nearest to him, so as to disengage the bolts 13 from the notches 11 of the segments 10 on the lower member or body portion of the work-platform, after which the platform will be swung pivotally by hand until it stands at the desired angle to the horizontal, whereupon the foot will be removed from the treadle-lever and the springs 16 will at once raise said lever to its normal position and throw the bolts 13 into engagement with the teeth of the segments.

The lower member or body portion 9 of the work-platform is of rectangular form and is provided at its upper part with a circular portion 25, having a flat upper surface. The upper member 26 of the work-platform is likewise of rectangular form and is provided on its lower surface with a depending circular portion 27, having a flat under side adapted to rest on the flat upper face of the circular portion 25 of the lower member 9 of the platform. The lower member or body portion 9 of the work-platform is provided with a central brace 28, extending across its under side, in which brace is carried the pivot-pin 29, extending up centrally through the circular portions 25 and 27 of the lower and upper members of the platform and having its upper end screw-threaded to receive a clamping-nut 31, as clearly shown in the drawings.

On the pivot-pin 29, beneath the clamping-nut 31, is held a clamping-bar 30, between which and the upper face of the upper member 26 of the platform the work is held, and in order to secure a piece of work—as, for example, the bed of a buggy, as shown at x in Fig. 2—upon the platform an opening is first formed in the bottom of the bed for the passage of the pin 29, whereupon the bed is placed upon the platform, the pin 29 extending through the opening in the bottom thereof, and the clamping-bar 30 and nut 31 are applied over the pin 29 on the upper side of the bed to clamp the same securely to the platform. The clamping-nut 31 serves not merely to hold work securely to the platform, but also acts to lock the upper and lower members of the work-platform together when they have been properly adjusted, so as to prevent the movement of the upper member upon the lower.

From the above description it will be seen that the improved stand or table is of an extremely simple and inexpensive nature and is especially well adapted for use in carriage and wagon factories and shops for holding work during the finishing and painting, and it will also be obvious from the above description that the invention is susceptible of some modification without material departure from its principles and spirit, and for this reason I do not wish to be understood as limiting myself to the precise form and arrangement of the various parts of the improved stand or table herein set forth.

Having thus described my invention, I claim—

1. In a work-holding stand, the combination with a frame comprising side pieces pro-

vided at their inner sides with oppositely-curved guideways, a platform tiltingly mounted upon the upper end of the stand, and a notched segment pendent from the platform, of a vertically-movable bolt adapted to engage with the notched segment and secure the platform at an adjusted position, a treadle having the locking-bolt attached thereto, and pivot-pins projecting laterally from opposite sides of the treadle and acting jointly with the aforesaid curved guideways to hold the treadle in position and direct it in its movements, substantially as set forth.

2. In a work-holding stand, the combination with a frame comprising side pieces provided at their inner sides with oppositely-curved guide-grooves, blocks secured to the side pieces and located at the upper ends of the guide-grooves and having their lower edges notched to coincide with the said grooves, a platform mounted to turn upon the upper end of the stand, and a notched segment pendent from the platform, of a vertically-movable bolt adapted to engage with the notched segment and secure the platform at an adjusted position, a treadle having the locking-bolt attached thereto, and pivot-pins projecting laterally from opposite sides of the treadle and normally seated in the notches of the aforesaid blocks and adapted to coöperate with the curved guide-grooves to maintain the treadle in proper position and direct it in its movements, substantially as described.

3. In a work-holding stand, the combination with a frame comprising side pieces having oppositely-curved grooves formed in their inner sides, a platform mounted to turn upon the upper end of the frame, and notched segments secured to the side of the platform and disposed to come in contact with the inner faces of said side pieces, of vertically-movable bolts applied to said side pieces and adapted to engage with the notched segments and hold the platform in an adjusted position, a treadle fitting snugly between the side pieces of the frame and having the locking-bolts attached to its end portions at an intermediate point, and pivot-pins projecting from opposite ends of the treadle and entering the curved guide-grooves, substantially as and for the purpose set forth.

4. In a work-holding stand, the combination of a frame comprising side pieces provided at their inner faces with curved grooves arranged in pairs, and a cross-piece connecting the side pieces and provided at its ends with openings, a depressible treadle comprising side pieces 19, and the cross-pieces 20 connecting the ends of the side pieces and located at opposite sides of the central cross-piece, pivots arranged in pairs and located at the ends of the cross-pieces 20 and projecting into the said grooves, a movable platform, locking devices for holding the platform at the desired adjustment, and connections between the treadle and the locking devices, said connections extending through the openings of the central cross-piece, substantially as described.

5. In a work-holding stand, the combination with a frame comprising side pieces having their upper ends made rounding, a cross-rod concentric with the rounding ends of the side pieces and supported thereby, a platform mounted to rock upon the rounded ends of the side pieces, and positive connections between the platform and the said cross-rod, of notched segments pendent from the platform and bearing against the inner faces of the side pieces, guide-plates secured to the side pieces and having their lower end portions overlapping the inner or upper edge portions of the notched segments, vertically-movable bolts applied to the side pieces and coöperating with the notched segments to secure the platform in an adjusted position, and a treadle having the locking-bolts connected therewith, substantially as set forth.

6. In a work-holding stand, the combination with a frame comprising side pieces, a platform tiltingly mounted upon the upper end of the frame, notched segments pendent from the platform, and a cross-piece connecting the lower ends of the side pieces and having its end portions bifurcated forming spaces and bent and attached to the side pieces, of vertically-movable bolts applied to the said side pieces, a treadle, and links connecting the lower ends of the bolts with the treadle and operating in the spaces formed between the bifurcations of the aforementioned cross-piece, substantially as set forth.

7. The herein-described work-holding stand, comprising a frame having side pieces rounded at their upper ends, a cross-rod concentric with the rounded ends of the side pieces and supported thereby, a platform mounted to rock upon the rounded ends of the side pieces and provided with a work-holding clamp, bracket connections between the platform and cross-rod, notched segments pendent from the platform, guide-pieces secured to said side pieces and overlapping the inner or upper edge portions of the notched segments, spring-actuated bolts applied to the inner faces of the side pieces and adapted to coöperate with the notched segments, a treadle having its end portions connected at an intermediate point with the respective bolts, and pivot-pins projecting from opposite sides of the treadle and coöperating with curved guideways at the inner faces of the side pieces, substantially as and for the purpose set forth.

8. In a work-holding stand, a frame having oppositely-located pairs of curved guideways, a tilting platform supported by the frame, a treadle having pivot-pins at its four corners to coöperate with the guideways, and a locking-bolt connection between said treadle and platform, substantially as described.

9. In a device of the class described, the combination of a frame having sides provided

with curved grooves arranged in pairs, a locking device, a movable platform secured in its adjustment by said locking device, a treadle for operating the locking device, and horizontal pivots arranged in pairs at the ends of the treadle and extending into the said grooves, substantially as described.

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

MYRTLE V. HANSCOM.

Witnesses:

JOHN W. BLOUNT,

MANSFIELD P. BAKER.