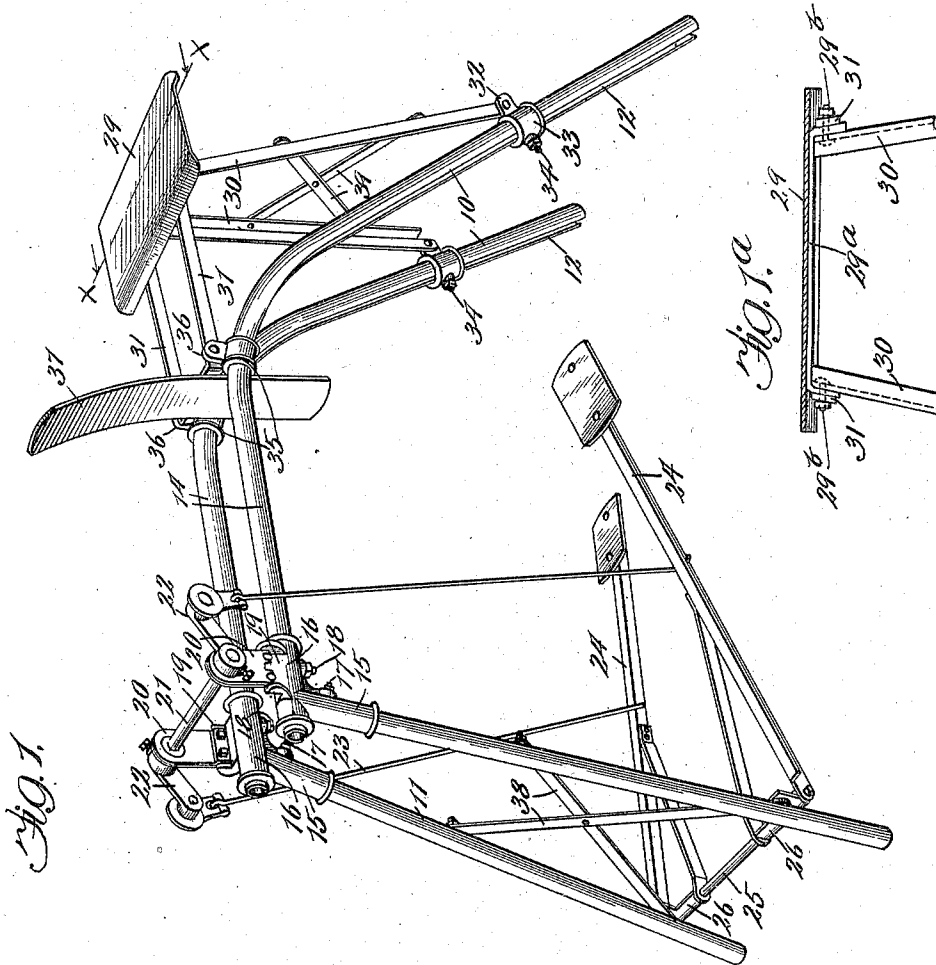


T. C. PROUTY.
GRINDSTONE FRAME.
APPLICATION FILED SEPT. 7, 1909.

951,578.

Patented Mar. 8, 1910.

2 SHEETS—SHEET 1.



Witnesses:
Edw. P. Perry
H. D. Dumas Jr.

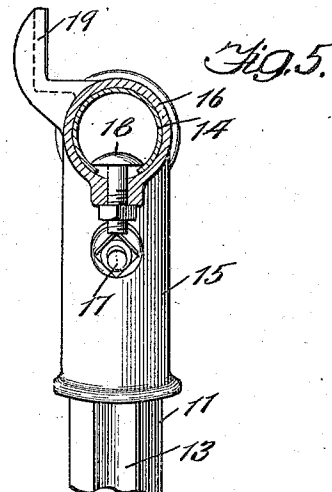
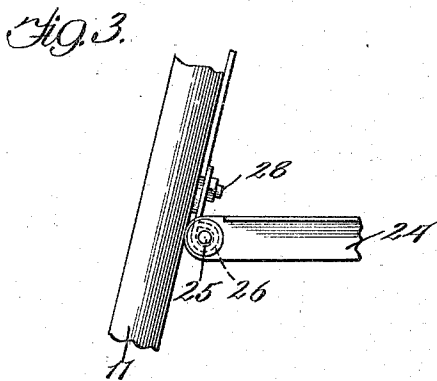
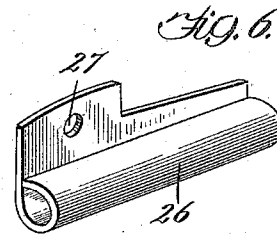
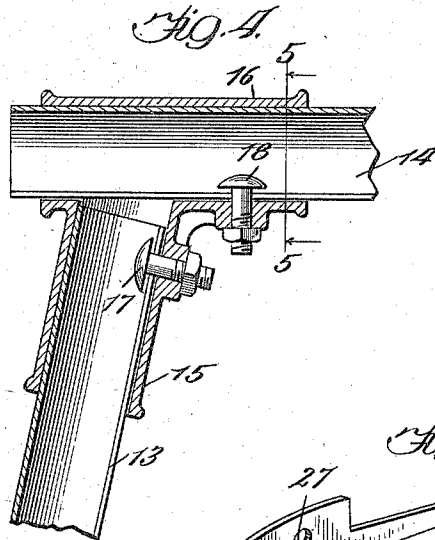
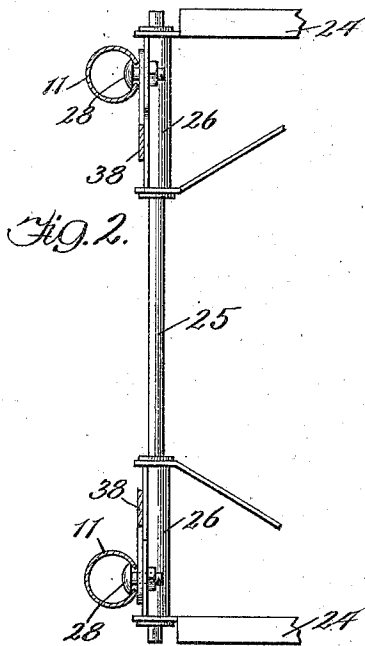
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2 SHEETS—SHEET 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

THEODORE C. PROUTY, OF AURORA, ILLINOIS, ASSIGNOR TO WILCOX MANUFACTURING COMPANY, OF AURORA, ILLINOIS, A CORPORATION OF ILLINOIS.

GRINDSTONE-FRAME.

951,578.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed September 7, 1909. Serial No. 516,320.

To all whom it may concern:

Be it known that I, THEODORE C. PROUTY, a citizen of the United States, residing at Aurora, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Grindstone-Frames, of which the following is a specification, reference being had to the accompanying drawings.

15 This invention relates to improvements in frames, and more particularly to frames adapted for supporting rotatable grindstones.

It is highly desirable that grindstone frames be so constructed as to be readily and quickly taken apart for storage and shipment and also that they be so constructed as to properly receive stones of varying diameters.

20 It is the object of my invention to provide a construction possessing these advantages in a marked degree, and it is a further object of my invention to provide a construction that permits of the various parts carried by the frame,—such as the operator's seat, the foot-treadles, and the like,—to be readily shifted to different positions upon the frame to suit different operators. These objects I accomplish by the parts and combination of parts shown in the drawings and hereinafter specifically described.

That which I believe to be new will be set forth in the claims.

35 In the drawings,—Figure 1 is a perspective view of my improved grindstone frame; Fig. 1^a is a detail, being a section at line *x-x* of Fig. 1 and showing the manner of pivotally mounting the operator's seat; Fig. 2 is a cross-section through the pair of front supporting legs and showing also the forward portions of the treadle-bars connected therewith; Fig. 3 is a detail, being a side elevation of a portion of one of the forward supporting legs and a portion of one of the 45 treadle-bars connected thereto; Fig. 4 is an enlarged detail, being a vertical central section through one of the corner pieces and illustrating the manner of adjustably connecting two members of the frame to such corner piece; Fig. 5 is a vertical section taken at line 5-5 of Fig. 4; and Fig. 6 is an enlarged detail of one of the adjustable bearings for the cross-rod, to which cross-rod the treadle-bars are connected.

In the several figures of the drawings, in 55 which corresponding parts are indicated by like reference characters,—10 indicates the rear supporting legs and 11 the front supporting legs respectively. Each of these four members is formed of a piece of tubing provided with a longitudinal slot,—the slots in the members 10 being indicated by 12 (see Fig. 1) and the slots in the members 11 being indicated by 13. Such slots, in the construction shown, extend from end to end of 65 the tube, and, as the various supporting members are arranged, these slots are in the inner or under face of the tubes. As shown, the front and rear legs are both arranged to stand at an angle,—the rear legs being at 70 a greater inclination than the front ones, and said rear legs being each bent so as to extend forward and from substantially horizontal portions 14, the space between said horizontal portions being sufficient to receive 75 a grindstone that is to be supported by the frame.

15—16 indicate sleeves formed in a single piece in the construction shown and forming a corner block adapted to receive respectively the upper end of one of the forward legs 11 and the end of one of the horizontal portions 14 that is, as said, an extension of one of the rear legs 10. Two of these corner blocks are provided, as shown. The sleeve 85 portion 15 stands at an angle, as is required, to receive the inclined leg 11, while the sleeve 16 lies in a horizontal position to properly receive the horizontally-disposed part 14. The parts 11 and 14 are secured in place 90 within their respective sleeve portions 15—16 by bolts 17—18, respectively, (see Fig. 4), the heads of the same being within the tubing and projecting through suitable holes in the corner piece, the bolts being tightened 95 up, as desired, by nuts, as shown. It is apparent from this construction that when it is desired to move the rear members 12 closer to the front members 11 all that is necessary to be done is to loosen the nuts on 100 the bolts 18, whereupon, by reason of the slotted construction of the rear members —12—14— such rear members can be moved forward as desired, the ends of the members 14 passing freely through the sleeve portion 105 16. When the desired adjustment has been reached, it is maintained by screwing up the nuts. In a similar manner the front legs 11

can be adjusted in their respective sleeves so as to insure the stone-bearing horizontal parts 14 being brought to a perfect level or horizontal position, and this too even if the floor upon which the frame rests is not perfectly even.

19 indicates a lip cast or formed with each corner piece 15—16, to which lip is adapted to be bolted one of the vertical supports 20, in which is journaled a grindstone shaft 21.

22—22 indicate cranks on the ends of the grindstone shaft, to which are suitably secured the upper ends of rods 23, the lower ends of the rods being secured to foot-treadles 24.

It is highly desirable that the point of pivotal attachment of these foot-treadles to the frame be capable of variation, and by reason of the employment of the slotted tubes for the forward legs I am enabled to provide for this adjustment in a very effective manner. The foot-treadles, as will be best seen by reference to Figs. 1 and 2, are connected at their forward ends to a cross-rod 25 which is supported opposite the slotted inner face of each front leg 11 by a bearing 26, the form and construction of which is best shown in Fig. 6. Each of these bearings is formed, as there shown, of a single piece of sheet metal, having a straight wall portion in which is a bolt hole 27, the lower portion of the sheet being bent around to form a sleeve-like portion adapted to receive said bar 25. Projecting from each forward leg 11 is a bolt 28, the head thereof being retained in the hollow leg, while the stem passes through the slot 13 therein. This bolt passes through the hole 27 in the bearing 26 and is retained by a nut as in the case of the bolts 17—18. It is apparent that by loosening the nuts on these two bolts the bearings 26 can be adjusted up or down and secured at any desired place at will.

29 indicates a seat provided for the operator, and it is an advantage to be able to quickly and easily adjust this seat both as to height and as to its being closer to or farther back from the grindstone. I am able to accomplish both of these adjustments by reason of the slotted tubular construction of the frame. The seat has two downwardly-extending supports 30 and two forwardly extending supports 31, both sets of supports being connected with the under part of the seat. As shown in Fig. 1^a the seat is attached to these supports through a heavy bar 29^a that is bolted to the under face of the seat and has its ends turned down opposite the meeting ends of the supports 30 and 31. Bolts 29^b secure the said supports together, the turned ends of the bar 29^a lying between the supports, through which ends the bolts also pass of course. The seat is thus pivotally supported, which allows it to be adjusted to different inclinations as

may best suit the person seated thereon. The lower end of each support 30 is pivotally connected to an ear 32 on a collar 33 that is locked to its respective leg 12 by a bolt 34 that, like the bolts 17, 18 and 28 previously described, has its head within the tubular member and its stem projecting through the slot therein. Each bolt can be tightened up by a nut so as to set the collar at any desired point on the leg. Similar devices are provided for connecting up the forwardly-extending seat supports 31, the collars that surround the tube being indicated by 35 and the ears formed thereon by 36. By this construction it is evident that the seat can be varied in the ways described very quickly and easily. The bars 31 referred to are formed from a single piece of bent material, as shown in Fig. 1, and carry at their forward ends a suitably-pivoted guard-plate 37, which, of course, is carried forward or back when the bars 31 are shifted as described, and hence can always be kept in proper relation to the grindstone.

The two similar sides of the frame are held braced apart at their front ends by suitable braces 38 and at their rear ends are held braced apart by the seat supports 30 which, as shown, are themselves braced by cross-bars 39. An intermediate bracing part is also afforded by the forward portion of the bent bar that constitutes the forwardly-extending seat braces 31.

Not only do I attain the advantages of the various adjustments specified by reason of the employment of slotted tubular bars for the framework, but such slotted tubular construction also has the advantage of producing a light and strong structure and one that can be very readily taken apart for shipping or storing purposes and can be as quickly put together when required for use. Furthermore, by providing the sleeved corner block construction described the frame as a whole can be adapted for grindstones of varying diameters.

That which I claim as my invention, and desire to secure by Letters Patent, is,—

1. A frame of the class described formed of slotted tubes in combination with means for holding the two sides of the frame spaced apart, said means comprising devices extending through the slots in the tubes and adjustable lengthwise of the tubes.

2. A frame of the class described, consisting of two side sections spaced apart, each side section comprising in combination a plurality of slotted tubes, a connecting device, and bolts projecting through the slots in the tubes and through said connecting device.

3. A frame of the class described, comprising two side portions spaced apart, each side portion consisting of a front leg and a rear leg, said rear leg being bent forward at

its upper portion toward the front leg, and means for adjustably connecting said turned portion of the rear leg with said front leg.

4. A frame of the class described, comprising two side portions spaced apart, each side portion consisting of a front leg, a rear leg bent forward toward the front leg and a sleeve carried by said front leg in which said extended portion of the rear leg is adjustably secured.

5. A frame of the class described, comprising two side portions spaced apart, each side portion consisting of a front leg and a rear leg, one of said legs being bent toward the other leg, and a connecting piece into which the extended portion of the said bent leg projects, and means for adjustably securing said extended portion in said connecting piece.

6. In a frame of the class described, the combination with two side portions spaced apart, each side portion comprising tubular members, of means for adjustably securing the front and rear leg members of each side portion together to vary the length of the frame.

7. In a frame of the class described, the combination with two side portions spaced apart, each side portion comprising a slotted tubular member, of means projecting through the slot adapted to adjustably secure said front and rear leg members together whereby the length of the frame may be varied.

8. A frame of the class described, comprising two side portions spaced apart, each side portion consisting of a front leg, a rear leg bent forward toward the front leg and a connecting piece formed of two sleeves into which said front leg and the extended portion of the rear leg respectively project, and means for adjustably securing them in said sleeves.

9. A frame of the class described, comprising two side portions spaced apart, each side portion consisting of a front leg, a slotted tubular rear leg bent toward the front leg and a connecting piece secured to said front leg and being provided with a sleeve into which said extended portion of the rear leg projects, in combination with a bolt passing through the slot in said forwardly-extending portion and through said sleeve, and means for securing said bolt in place.

10. In a frame of the class described, the combination with a slotted tubular leg, of a treadle, a pivot rod, a bearing in which said pivot rod is supported, and adjustable means

extending into said slotted leg for securing said bearing to the leg.

11. In a frame of the class described, the combination with a slotted tubular leg, of a treadle, a pivot rod, a bearing in which said pivot rod is supported, said bearing consisting of a sheet of material bent to form a sleeve, a bolt extending through the slot in the leg and through the sheet of material from which said bearing is formed, and means for tightening said bolt.

12. In a frame of the class described, the combination with two rear legs each formed of a slotted tube, of a seat, collars on said legs, means projecting from the slots in the tubes for adjustably securing said collars in place, and supports connecting said seat and collars.

13. In a frame of the class described, the combination with two rear legs, of a seat, supports for said seat, and means for adjustably connecting said seat-supports to said rear legs.

14. In a frame of the class described, the combination with two rear legs, each formed of a slotted tube, of a seat, seat-supports, and means projecting through the slots in the tubes for adjustably securing said seat-supports to said tubes.

15. In a frame of the class described, the combination with two side frame portions spaced apart, each side portion comprising a front leg and a rear leg bent forward toward the front leg, of seat-supports connected to said rear legs, and a seat pivotally secured to said supports.

16. In a frame of the class described, the combination with two side frame members spaced apart, of a seat, two downwardly-extending seat supports connected with said frame members, two forwardly-extending seat supports connected with said frame members, a bar secured to the under face of the seat, and means pivotally connecting said seat through said bar to said supports.

17. In a frame of the class described, the combination with two side frame portions spaced apart, each side portion comprising a front leg and a rear leg bent forward toward the front leg, of supports connected to the lower portion of said rear legs and other seat-supports connected to the forwardly-extending portions of said rear legs, and a seat pivotally secured to said supports.

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Witnesses:

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