F. H. JAEGER.

FOLDING MOP WRINGER.

APPLICATION FILED SEPT. 11, 1908.

930,182.

Patented Aug. 3, 1909.

2 SHEETS—SHEET 1.

Fig. I.

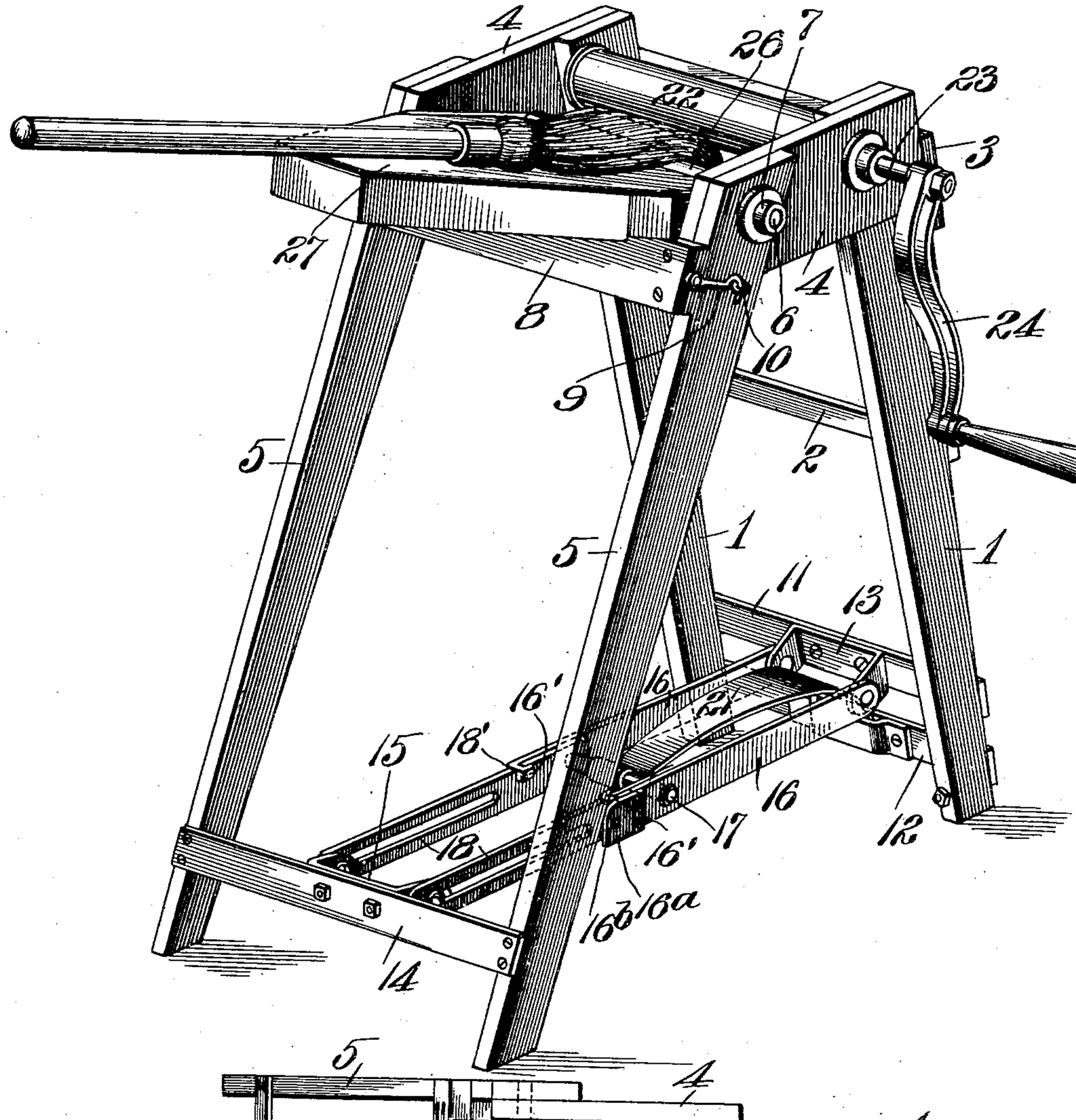

Fig. II.

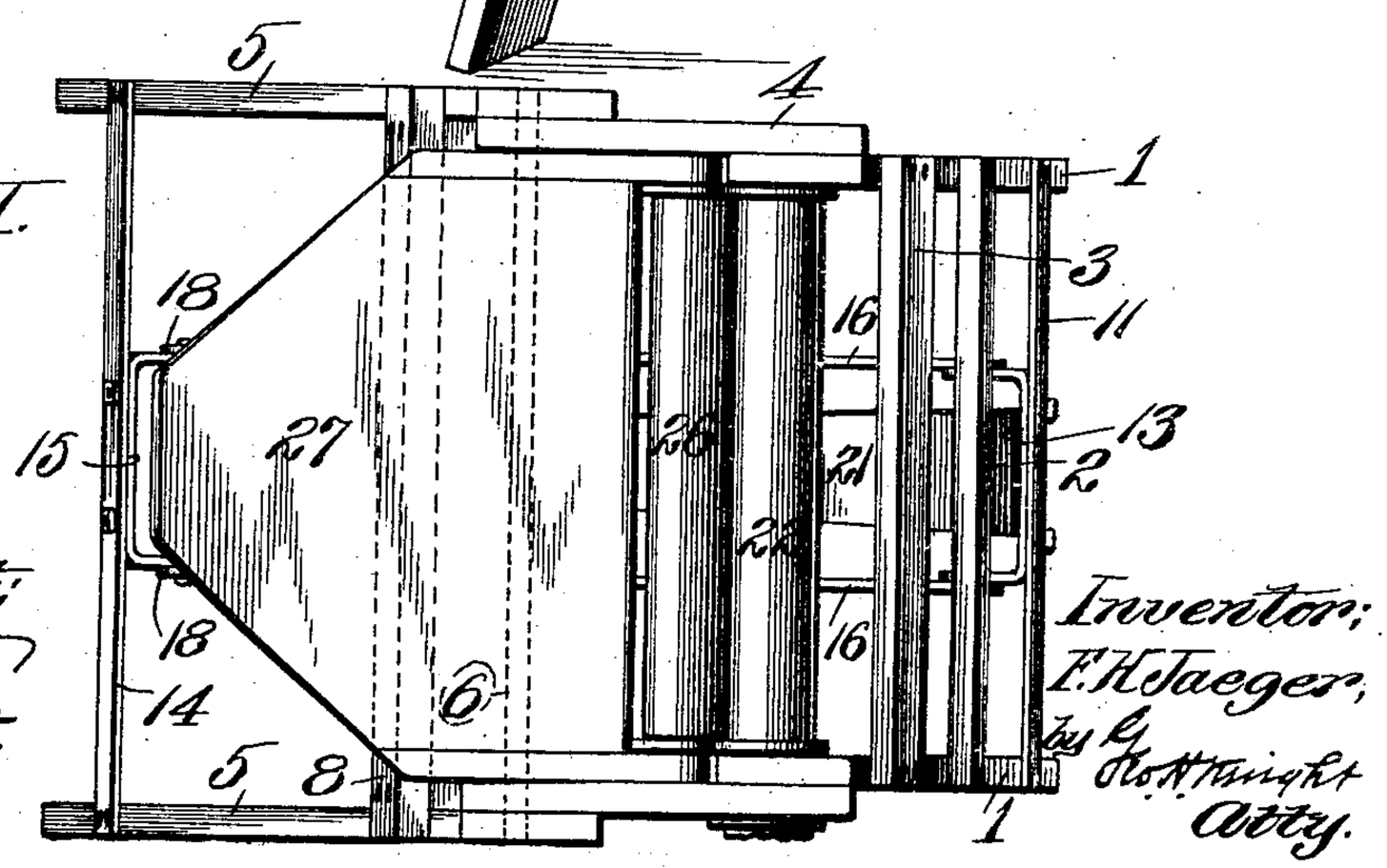

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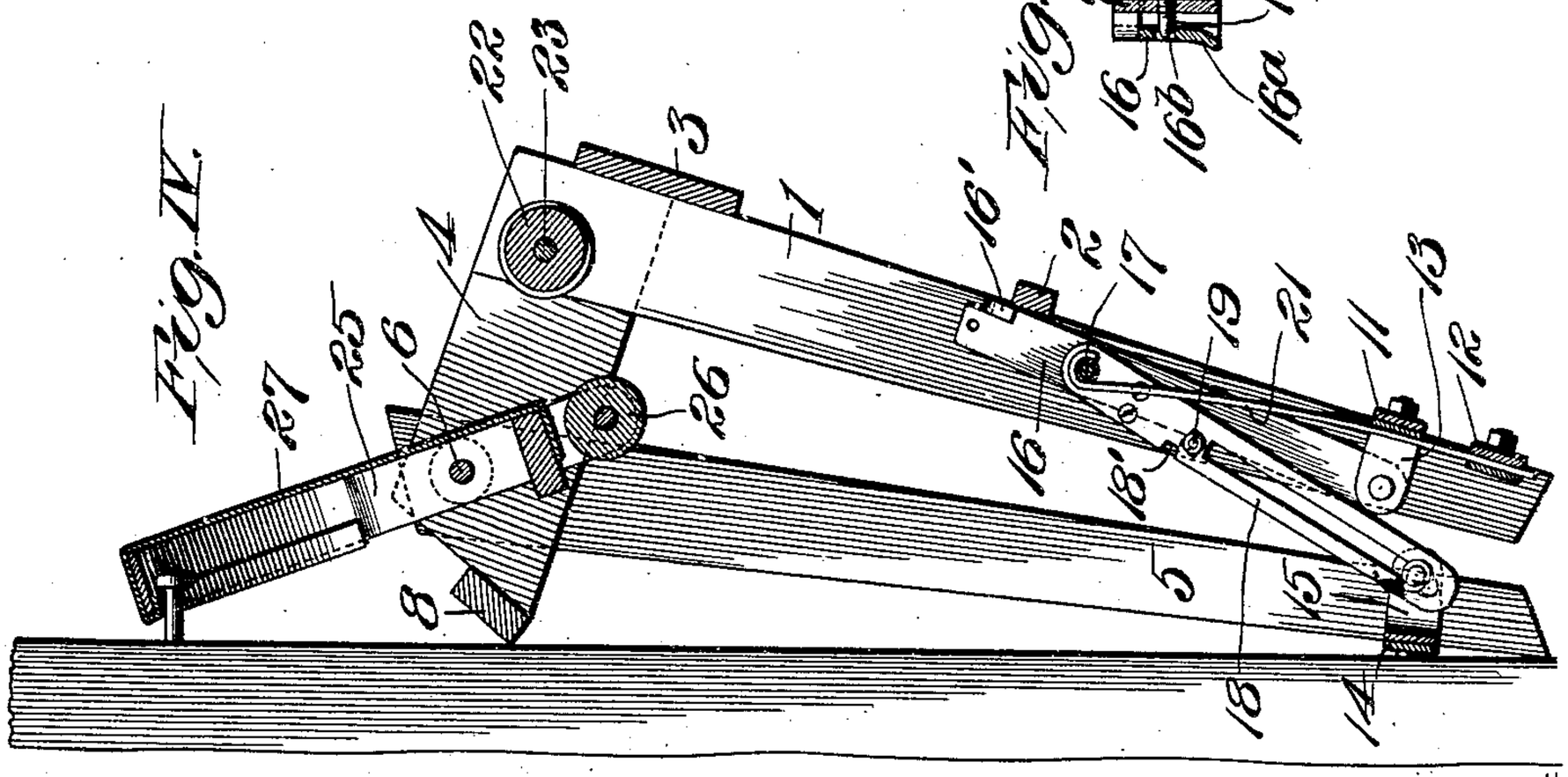
Fig. V.

Fig. IV.



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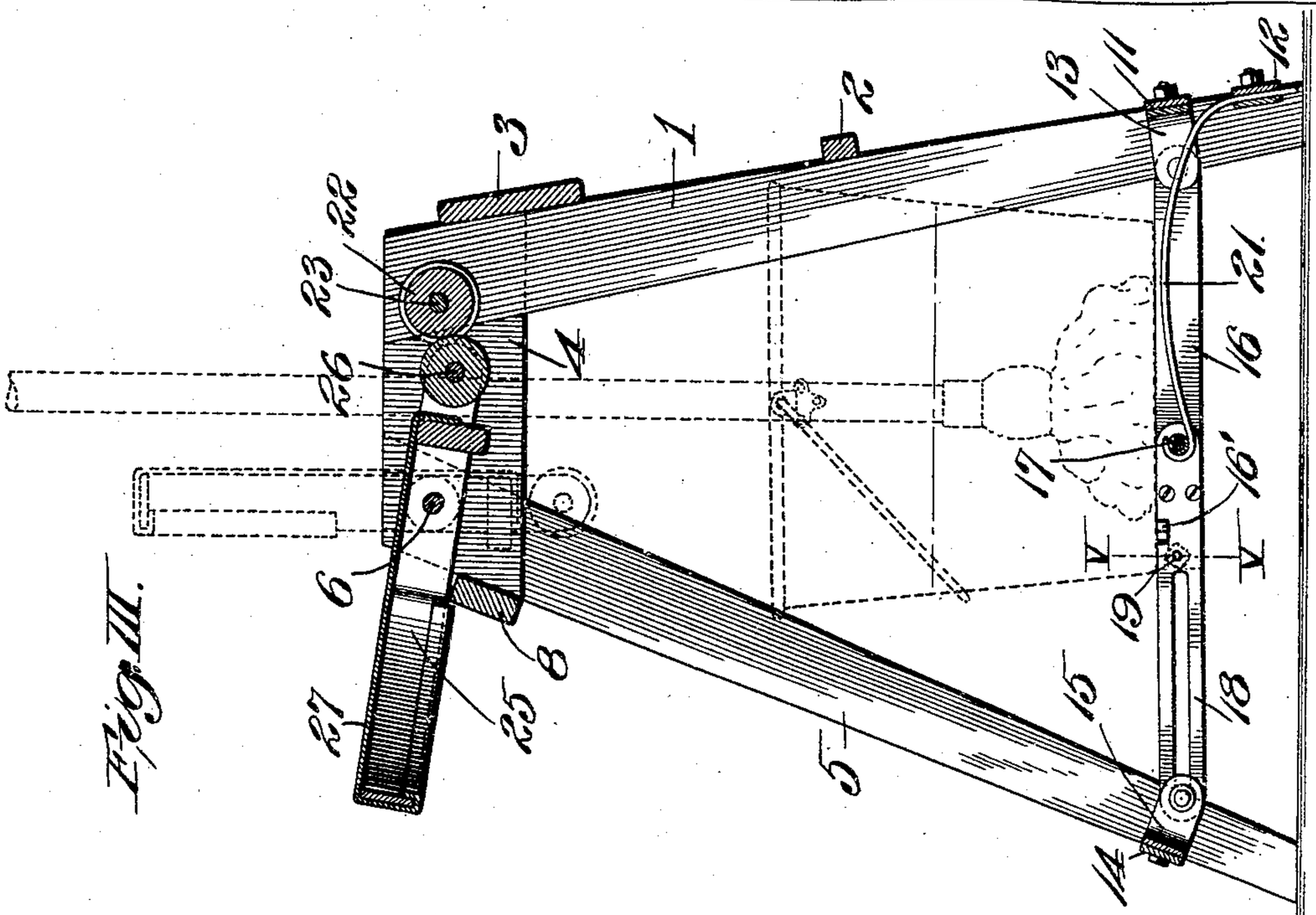

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UNITED STATES PATENT OFFICE.

FRANK H. JAEGER, OF ST. LOUIS, MISSOURI.

FOLDING MOP-WRINGER.

No. 930,182. Specification of Letters Patent. Patented Aug. 3, 1909.

Application filed September 11, 1908. Serial No. 452,552.

To all whom it may concern:

Be it known that I, FRANK H. JAEGER, a citizen of the United States of America, residing at the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Folding Mop-Wringers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a mop wringer, and it has for its object the production of a device of this character which comprises a suitable main frame and wringing rollers, the parts of the main frame being so connected to each other, as to permit of the wringer being folded into a compact condition, when not in use, and unfolded and retained in an unfolded position in an efficient manner, when the wringer is put into service.

Figure I is a perspective view of my mop wringer in condition for use, showing the parts as they appear when a mop is being wrung in the employment of the device. Fig. II is a top or plan view of the wringer in its unfolded condition. Fig. III is a vertical longitudinal section through the wringer in its unfolded condition. Fig. IV is a longitudinal vertical section taken through the wringer in its folded condition and illustrating the manner in which it may be suspended from a suitable support when it is not in use. Fig. V is an enlarged vertical cross section taken on line V—V, Fig. III, through the leg spreader of the main frame at the location of the detent by which the leg spreader is held from movement when the main frame of the wringer is in unfolded condition.

In the accompanying drawings: 1 designates the inclined rear legs of the main frame of my wringer which are connected by an intermediate cross piece 2, and an upper cross piece 3.

4 are transverse side boards secured to the rear legs 1 at their upper ends and extending forwardly from said rear legs.

5 are the inclined front legs of the main frame which are pivotally connected at their upper ends to the side boards 4 through the medium of a cross rod 6 that extends through the front legs. The cross rod 6 has fitted to it at its outer ends collars 7 that serve to hold the rod in position in the side boards and front legs.

8 is a cross piece attached to the front ends of the side boards 4 and projecting outwardly from the outer faces of said side boards to form stops that restrict the movement of the front legs when they are moved forward or in a direction away from the rear legs 1 by swinging them upon the cross rod 6. When the front legs are spread as stated, thereby establishing the unfolded condition of the main frame of the wringer, the said legs are retained in their spread positions by a suitable hook or latch 9 attached to the cross piece 8 and arranged to engage an eye 10 seated in one of the front legs, as seen in Fig. I. The rear and front legs are spread from each other by a spreader which will next be described.

11 and 12 are cross bars secured to the rear legs 1 near their lower ends, and the former of which has attached to it at its rear side, a double-arm bracket 13.

14 is a cross bar attached to the front legs 2 near their lower ends and to which is affixed at its rear side a double-arm bracket 15.

16 are outer spreader bars pivotally connected to the arms of the double-arm bracket 13 at their outer ends and 17 is a pivot rod that connects said outer spreader bars and extends transversely between them.

18 are inner spreader bars having slot and pin connection with the arms of the double-arm bracket 15 attached to the front cross bar 14. These last named inner spreader bars are loosely fitted at their inner ends to the pivot rod 17 whereby they are joined to the outer spreader bars 16 in a manner to permit of the outer spreader bars 16 and inner spreader bars 18 being simultaneously elevated and lowered at their inner ends. The outer spreader bars 16 are provided with extensions at their inner ends that project beyond the joints of their pivotal connection to the pivot rod 17 and upon these extensions are stop fingers 16′, see Figs. I and III that are adapted to enter the notches 18′ in the upper edges of the inner spreader bars 18 when the outer and inner spreader bars are lowered into horizontal positions and into alinement with each other to hold the front and rear legs of the main frame of the wringer in a spread condition. Each of the outer spreader bars 16 is provided at its inner end with a spring latch plate 16^a that projects beyond the inner end of said outer spreader bar and contains an aperture 16^b. In the inner spreader bar 18 located alongside of the outer spreader bar bearing the latch plate just

mentioned is a latch pin 19 that is so located in the inner spreader bar 18 as to provide for its entering the aperture 16^b in the latch plate 16^a when the outer spreader bars 16 and inner spreader bars 18 are lowered into alinement with each other to hold the legs 1 and 5 spread from each other. The latch pin 19 is preferably in the form of a screw that extends through the inner spreader bar 18 in which it is seated and has threaded engagement therewith. This screw is preferably retained in the inner spreader bar after it has been introduced thereinto by a jam nut 20, see Fig. V.

21 designates a lift spring that is attached at its outer end by a strap plate to the lower cross bar 12 secured to the rear legs 1, and which is fitted or lapped at its inner end to the pivot bolt 17 that connects the outer spreader bars 16 and inner spreader bars 18. This lift spring serves to elevate the leg spreading members 16, 18 and 17 when the main frame of the wringer is to be folded after the latch pin 19 has been disengaged from the latch plate 16^a.

22 designates a wringer roller that is provided with a shaft 23 which is journaled in suitable bearings supported by the main frame of the wringer and has fixed to it a crank handle 24 by which the roller may be rotated.

25 designates a pressure roller supporting frame that is rockably mounted upon the cross rod 6 that unites the front legs 5 of the main frame to the side boards 4 of said main frame. The frame 25 projects both inwardly and outwardly from said cross rod.

26 is a pressure roller loosely mounted in the forward ends or arms of the frame 25 and adapted to be moved into juxtaposition to the wringer roller 22. The roller supporting frame 25, is provided with a cover providing a drain plate or board 27 having rocking movement with the roller supporting frame.

In the practical use of my mop wringer, a bucket or other vessel is placed upon the spreader bars of the wringer as indicated in dotted lines Fig. III with the mop that is to be wrung seated in the bucket and having its handle extending upwardly between the wringer roller 22 and the pressure roller 26. The mop is then lifted by its handle until its butt end is positioned adjacent the wringer roller after which the pressure roller is moved upwardly toward the wringer roller and the mop by downward pressure upon the outer end of the pressure roller frame 25. The operator may then lay the handle of the mop upon the drain board 27 and while continuing to exert downward pressure upon the outer end of the frame 25, turn the crank handle 24 of the wringer roller, whereby the mop is fed upwardly and water wrung therefrom, during the movement of the mop between the two rollers. When the wringer is to be laid aside, the latch 9 is disengaged from the hook 10, thereby disconnecting the front legs 5 from the cross piece 8 carried by the side boards 4 and then the spreading members connecting the front and rear legs are unfastened at their adjacent ends. The entire frame of the wringer may then be folded in condition illustrated in Fig. IV and be suspended from a suitable hanger by the application of the pressure roller supporting frame to said hanger, as illustrated in said view.

I claim:

1. In a mop wringer, the combination of a rear main frame leg section provided with side boards extending forwardly therefrom, a forward main frame leg section pivotally connected to said side boards, rollers supported by said frame members, means whereby said leg sections may be held spread from each other; said last named means comprising spreader bars connected to said leg sections at their outer ends and pivotally connected to each other at their inner ends, and a spring carried by one of said leg sections and having connection with said bars at their point of pivotal connection to each other, whereby said bars may be lifted at their point of pivotal connection, substantially as set forth.

2. The combination of the rear legs having a cross bar and a double arm bracket secured to its cross bar, forward legs having a cross bar and a double arm bracket secured to its cross bar, the outer spreader bars pivoted to the double arm bracket of the rear cross bar, the inner spreader bars pivoted, by slot and pin connection, to the double arm bracket of the forward cross bar and a pivot rod connecting the adjacent ends of the outer and inner spreader bars.

FRANK H. JAEGER.

In presence of—
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E. M. HARRINGTON.