Feb. 17, 1953 C. MISHKIN 2,628,555

MACHINE FOR MARKING A PATTERN ON CLOTH

Filed June 2, 1952

5 Sheets-Sheet 1

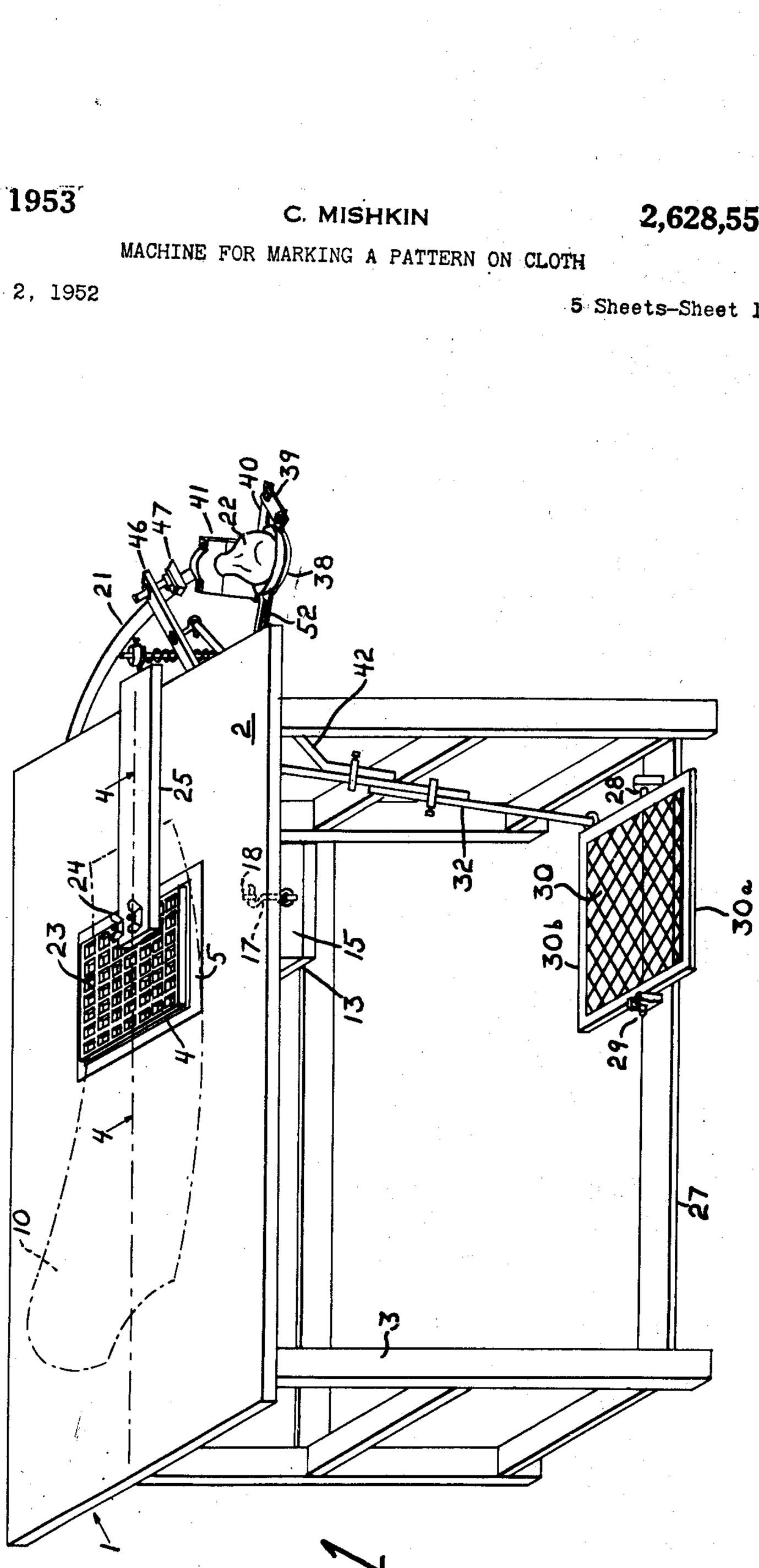

Fig. 1

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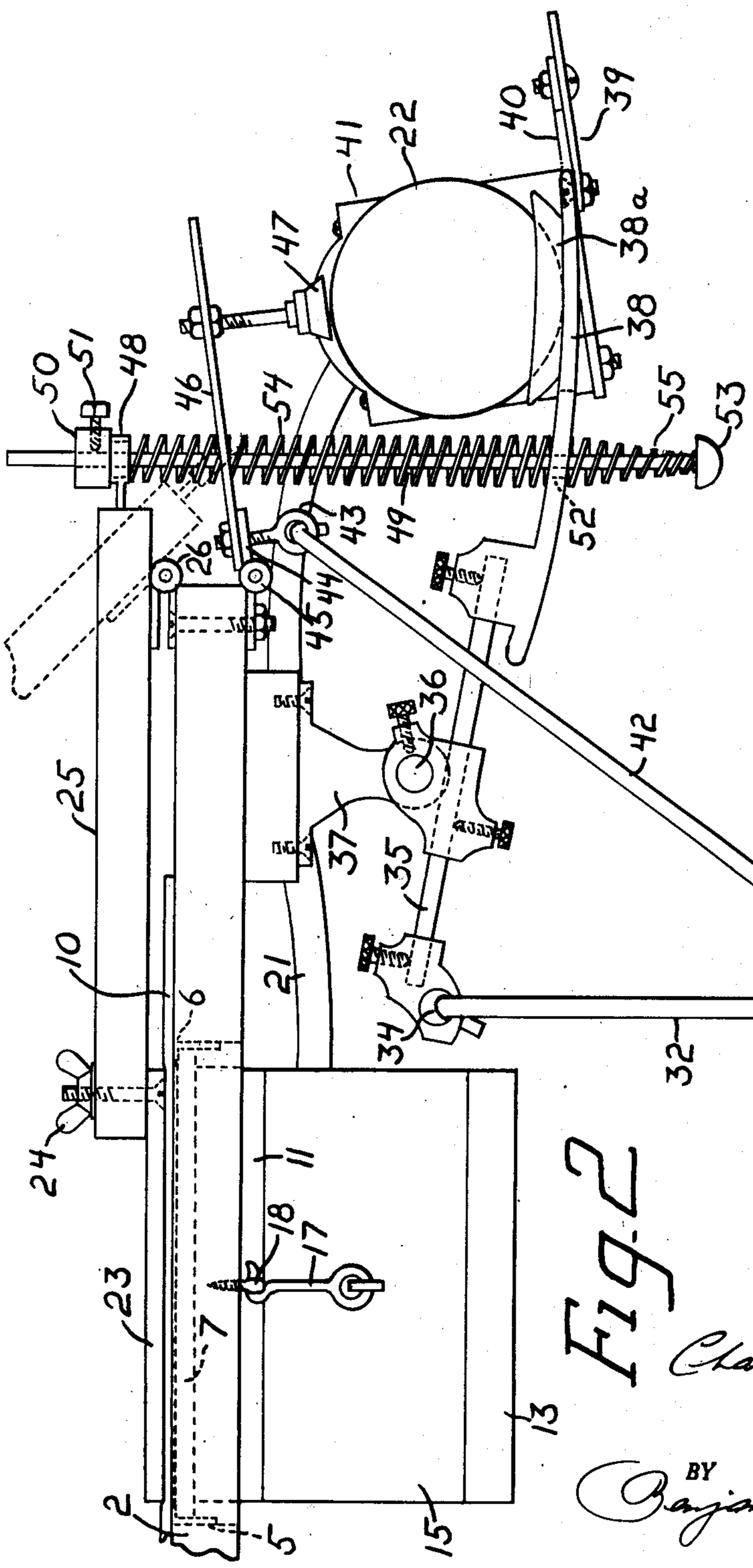

Fig. 2

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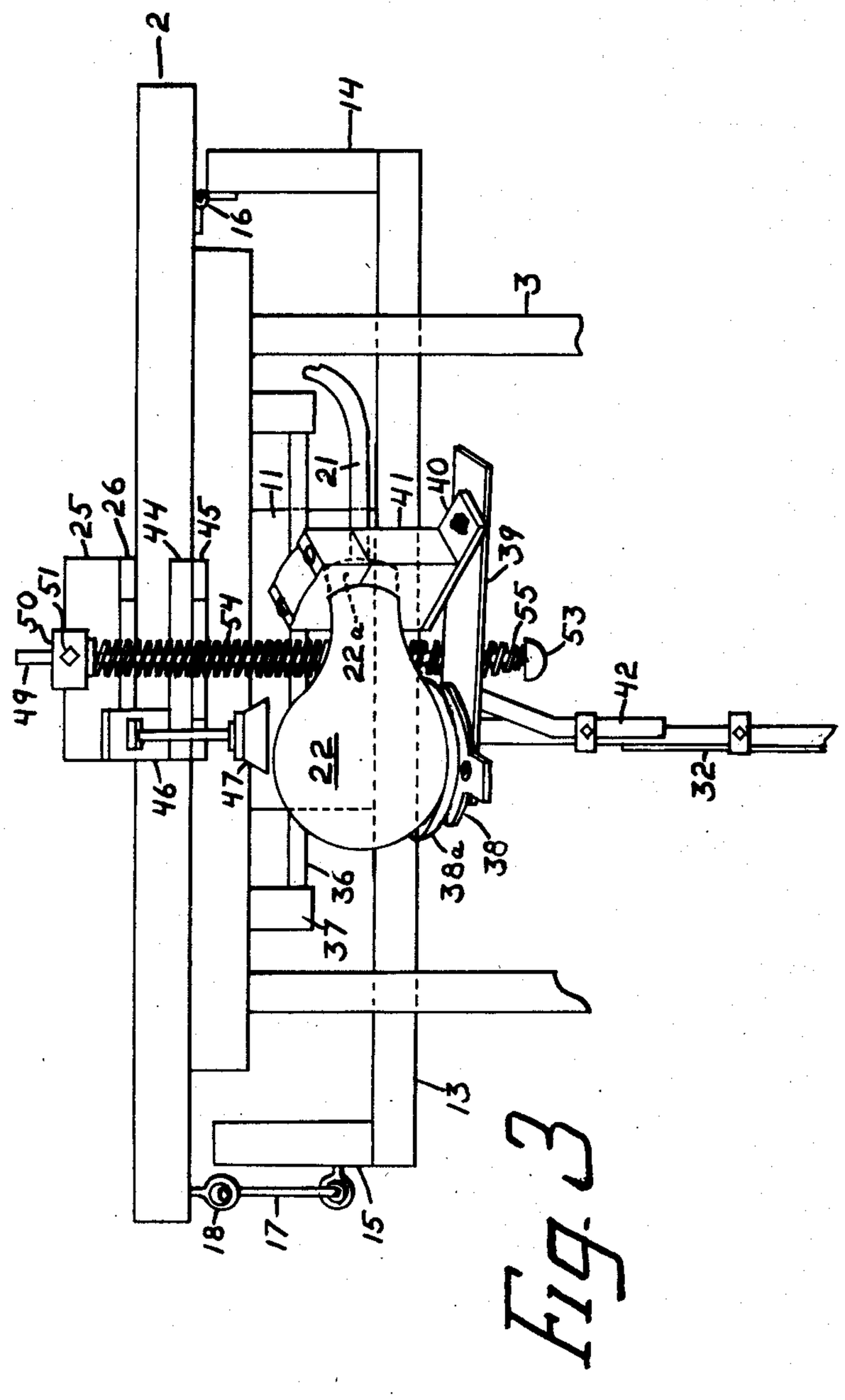

Fig. 3

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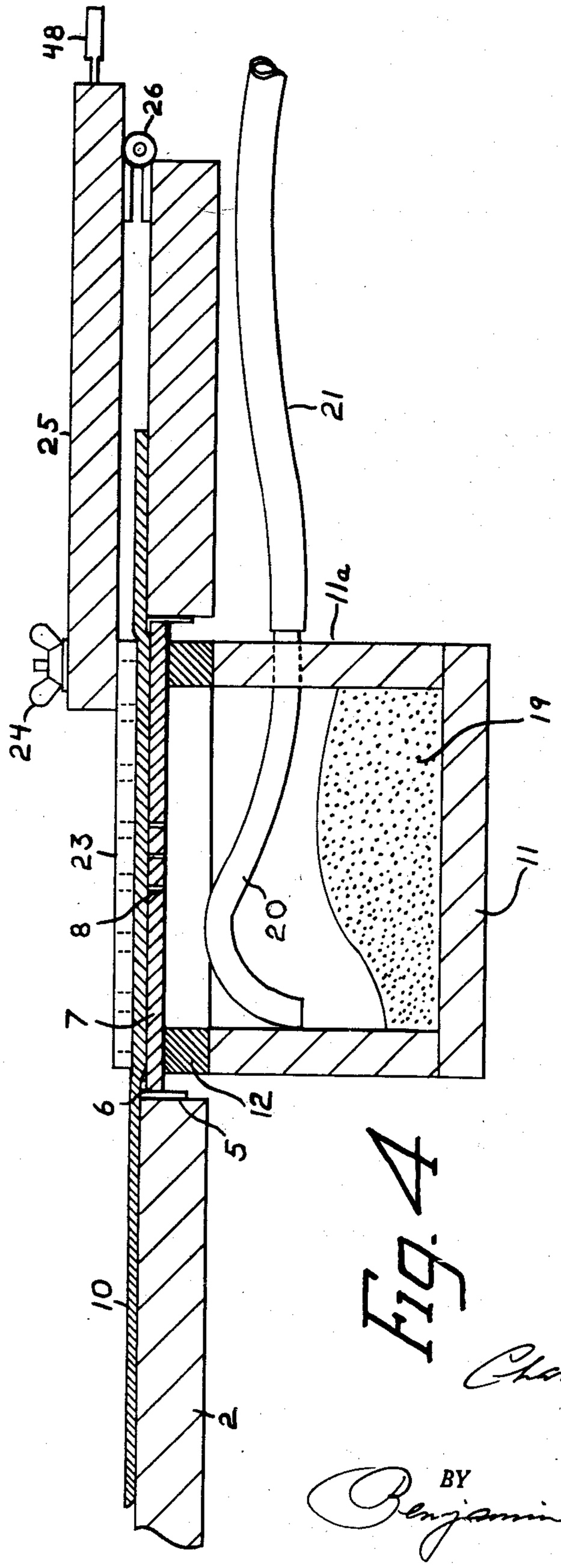

Fig. 4

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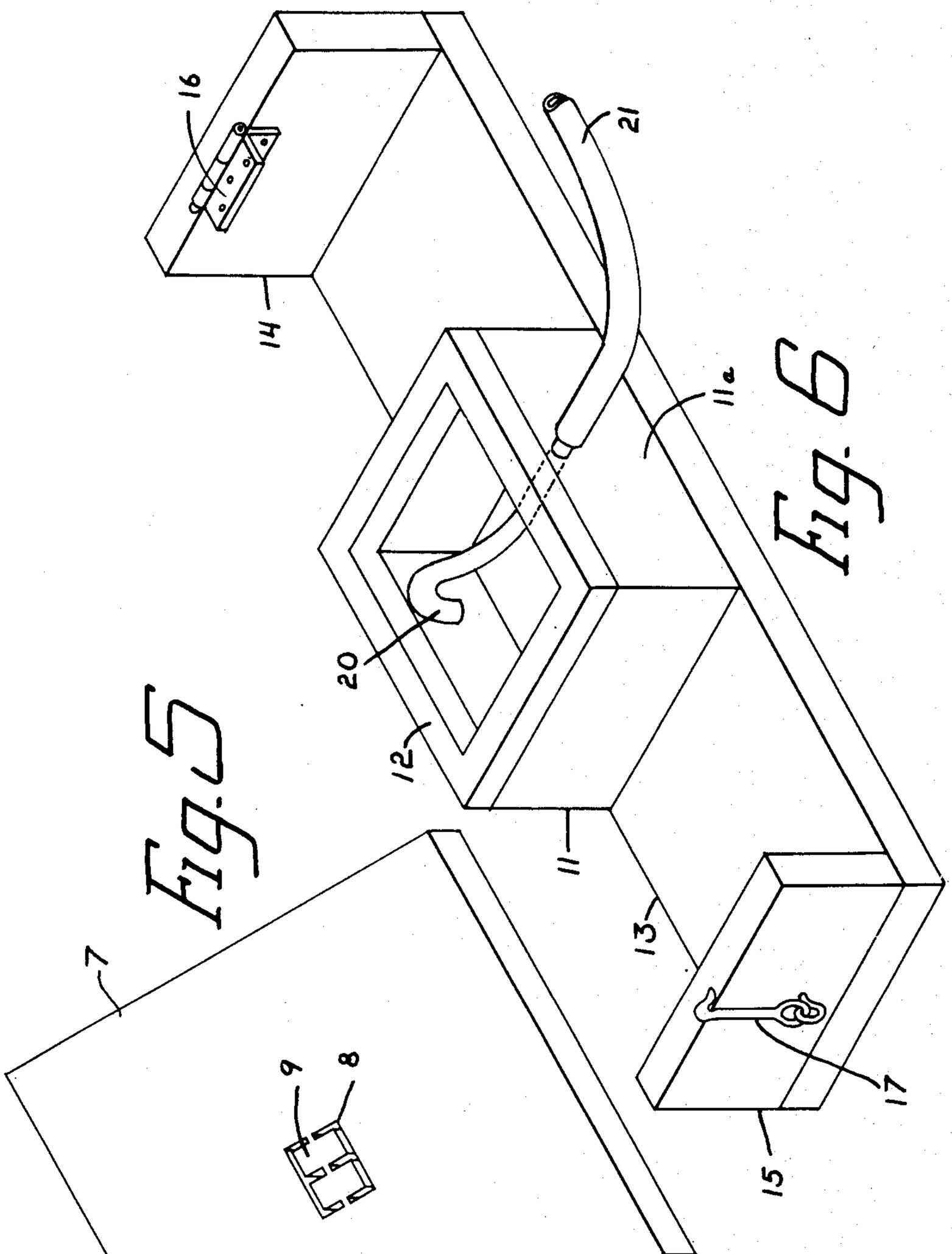

Fig. 5

Fig. 6

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2,628,555

UNITED STATES PATENT OFFICE

2,628,555

MACHINE FOR MARKING A PATTERN ON CLOTH

Charles Mishkin, Brooklyn, N. Y.

Application June 2, 1952, Serial No. 291,359

11 Claims. (Cl. 101—126)

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This invention relates to a machine for marking a pattern on cloth during manufacture of a garment, or prior to an operation on a part thereof, as making marks for location of patch pockets, marking shapes of lapels or undercollars, etc. Heretofore, such marking was performed by hand with a wax or chemical chalk and the aid of a cardboard pattern or shaper, which work is difficult, time consuming, subject to errors, non-uniform, and often the markings cannot be removed or may even be ruinous to the garment. Also, the said patterns become worn by the work and at times even inaccurate.

The principal object of the invention is to remedy all the aforesaid disadvantages, and to provide an improved machine wherewith the marking of any pattern on the cloth may be performed expeditiously, accurately, conveniently, and without requiring special skill.

Another object is to provide an improved machine which while possessing the said advantages will be conveniently and economically manufacturable, salable at low cost, simple, strong, durable, reliable, and conveniently, efficiently, and readily operable.

Other objects and advantages will hereinafter appear.

In the accompanying drawings,

Fig. 1 is a general perspective view illustrating the machine constituting the invention.

Fig. 2 is a fragmentary elevational view, in an enlarged scale, of the mechanism and operating parts of the machine shown in Fig. 1.

Fig. 3 is a right-hand side elevational view of the said mechanism, as viewed in Fig. 2.

Fig. 4 is a longitudinal cross-sectional elevational view, in a still further enlarged scale, of a part of the machine, taken on line 4—4 in Fig. 1.

Fig. 5 is a perspective view showing a detail of the machine.

Fig. 6 is a perspective view of another detail of the machine.

The pattern marking machine 1 includes a work table 2 on a stand 3, Fig. 1, in which table is formed a rectangular opening 4 bordered by a metallic framing 5 which is rightangular in cross-section and provides an annular lateral web 6, Fig. 4. For operation with the machine, there is utilized a plate 7 of suitable material, as wood, in which are formed through slottings 8 composing a pattern 9, Figs. 4, 5, which may be desired for marking upon the cloth 10 of the garment being manufactured, and the plate 7 is placeable in the opening 4 and against the

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web 6 of framing 5. There is further provided a container 11, Figs. 4, 6, which is rimmed by a rubber gasket 12 and is carried by a board 13 having uprights 14, 15. The upright 14 is secured to the underside of the table 2 by a hinge 16, and the upright 15 is removably held to said underside by carrying a hook 17 which engages an eye 18 threaded in the table. When the latter two are in engagement, therefore, the container 11 bears with its gasket 12 firmly against the mounted pattern plate 7, which thus constitutes a closure for the container, normally holding a quantity of powdered chalk 19 utilized in the operation of the machine. Within the container 11 is located a metallic nozzle 20 carried by wall 11*a* and projecting therefrom outwardly, and a tubing 21 joined to said nozzle as shown terminates in a rubber bulb 22 located near the front and right-hand side of the table 2, as illustrated in Fig. 1.

Superposed over the opening 4 and mounted plate 7, and in registry therewith, is a grating 23, Figs. 1, 4, made of suitable material as metal, and between said grating and plate may be placed the garment cloth 10 to be marked with the pattern 9. When the bulb 22 is compressed, it will force air into and through the tube 21 and nozzle 20, which compressed air emanating from said nozzle will agitate the chalk 19 and cause the latter to seep through and penetrate the slottings 8 of pattern 9, the interstices of the cloth 10, and the grating 23, and in this manner the pattern 9 will become clearly imprinted upon the cloth as may be required. The grating 23 is removably fastened by thumb-screws 24 to an arm 25, which is in turn secured by means of a hinge 26 to the edge of the table 2, as shown in Fig. 2. To a bottom board 27 forming part of the stand 3 is fulcrumed at 28, 29 a treadle 30, Fig. 1, to which is pivoted at 31 a link 32 in turn pivoted at 34 to a rocking rod 35 mounted on a shaft 36 supported by hangers 37 secured to the underside of table 2, as shown in Fig. 2, and the rod 35 carries an arm 38 which is secured to the bulb 22 as shown. To the end of arm 38 is secured a bar 39 carrying a bar 40 forming part of two half-cleats 41 that firmly engage the rear wrist portion 22*a* of the bulb 22. A branch 42 of the link 32 extends therefrom to near the right-hand edge of the table 2, whereat it is pivoted to an ear 43 forming part of a leaf 44 of a hinge 45 secured as shown to the underside of said table, and to the leaf 44 is secured a lever 46 provided with a plunger 47 extending toward the bulb 22.

The rear end of the arm 25 carries an ear 48,

through which passes a vertical rod **49** held thereto in place by a collar **50** secured to said rod by a set screw **51**, and said rod projects downwardly from the ear **48**, passes through an opening **52** in the arm **38**, and terminates in a head **53**. A spring **54** is wound around the rod **49** between the ear **48** and the arm **38**, and a spring **55** is wound around said rod between the arm **38** and the head **53**.

The operation of the machine is as follows: When its treadle **30** is in position midway of its tilting angle, the parts and mechanism of the machine **1** are in the positions and relations illustrated in Fig. 2, with the grating **23** superposed over the pattern plate **7**, and when it is desired to operate the machine the user first applies his heel pressingly against the near region **30***a* of the treadle. Thereupon, the link **32** moves upwardly and rocks the rod **35** and arm **38** about the shaft **36** in a clockwise direction, as viewed in Fig. 2, which action causes the arm **38** to compress the spring **55** and press downwardly upon the head **53**, thereby pulling down the rod **49** with the collar **50** and causing the latter to actuate the ear **48** and tilt upwardly the arm **25** about the hinge **26** to the angular position shown by the dash and dot lines. As the arm **25** is thus swung it lifts up the grating **23** away from the pattern plate **7**. The operative may then spread out the garment cloth **10** over the plate **7** and place it upon the work table **2** in precise location for marking the pattern **9** upon the cloth, and he then presses his toe against the farther region **30***b* of the treadle **30**. Thereupon the link **32** descends and rocks the rod **35** with the arm **38** in an anti-clockwise direction, which action initially releases the head **53**, rod **49**, with the collar **50**, and permits the arm **25** with the grating **23** to descend against the cloth **10**, as seen in Figs. 2, 4. The continued upward swing of the arm **38** then compresses the spring **54** against the ear **48** and thereby applies tensional pressure of the grating **23** against the cloth **10** and therethrough against the pattern plate **7**. Said continued swing of the arm **38** carries with it upwardly the dependent parts **39**, **40**, **41** with the bulb **22**, and simultaneously the descending link branch **42** actuates the ear **43** and lever **45** to push the plunger **47** downwardly and compress the bulb **22** against the cup-shaped part **38***a* of member **38**, which action agitates the chalk **19** to imprint the pattern **9** upon the cloth **10**. The operative may then again press the treadle region **30***a*, to lift away the grating **23**, remove the cloth **10** with its marking, spread out another garment cloth **10** in requisite location, and then press the treadle region **30***b* to operate the machine to perform a similar pattern marking on the succeeding cloth.

When marking work is desired with a different pattern, it may be readily substituted in the machine, by merely releasing the hook **17**, lowering the board **13** and container **11**, removing the previously used pattern plate **7**, inserting the desired pattern plate in opening **4** against web **6**, and engaging the hook **17**.

Variations may be resorted to within the scope of the invention, and portions of the improvements may be used without others.

Having thus described my invention, I claim:

1. A machine for marking a pattern on cloth having the combination of a work table for spreading the cloth thereupon, a plate having slottings denoting the pattern to be marked on said cloth, said table having an opening for receiving said plate in a position underlying said spread cloth, an open container for marking powder being located underneath said table in a position for closure thereof by said plate when in said opening, a grating placeable upon said spread cloth in registry with said plate, and means for forcing compressed air into said container for therein agitating said powder, whereby said air will be forced through said slottings, cloth, and grating, and cause said powder to imprint the pattern on said cloth.

2. A machine for marking a pattern on cloth having the combination of a work table for spreading the cloth thereupon, a plate having slottings denoting the pattern to be marked on said cloth, said table having an opening for receiving said plate in a position underlying said spread cloth, an open container for marking powder being located underneath said table in a position for closure thereof by said plate when in said opening, a grating placeable upon said spread cloth in registry with said plate, means for forcing compressed air into said container for therein agitating said powder, whereby said air will be forced through said slottings, cloth, and grating, and cause said powder to imprint the pattern on said cloth, and means to retain said grating in operative position in said placement.

3. A machine for marking a pattern on cloth having the combination of a work table for spreading the cloth thereupon, a plate having slottings denoting the pattern to be marked on said cloth, said table having an opening for receiving said plate in a position underlying said spread cloth, an open container for marking powder being located underneath said table in a position for closure thereof by said plate when in said opening, a grating placeable upon said spread cloth in registry with said plate, means for forcing compressed air into said container for therein agitating said powder, whereby said air will be forced through said slottings, cloth, and grating, and cause said powder to imprint the pattern on said cloth, means to retain said grating in operative position in said placement, and means to apply pressure of said grating against said cloth.

4. A machine for marking a pattern on cloth having the combination of a work table for spreading the cloth thereupon, a plate having slottings denoting the pattern to be marked on said cloth, said table having an opening for receiving said plate in a position underlying said spread cloth, an open container for marking powder being located underneath said table in a position for closure thereof by said plate when in said opening, a grating placeable upon said spread cloth in registry with said plate, means for forcing compressed air into said container for therein agitating said powder, whereby said air will be forced through said slottings, cloth, and grating, and cause said powder to imprint the pattern on said cloth, and an arm carrying said grating being hinged to swing the grating to a position in registry with said plate and to a location away from said plate.

5. A machine for marking a pattern on cloth having the combination of a work table for spreading the cloth thereupon, a plate having slottings denoting the pattern to be marked on said cloth, said table having an opening for receiving said plate in a position underlying said spread cloth, an open container for marking powder being located underneath said table in a position for closure thereof by said plate when in said opening, a grating placeable upon said spread cloth in registry with said plate, means for forc-

ing compressed air into said container for therein agitating the powder, whereby said air will be forced through said slottings, cloth, and grating, and cause said powder to imprint the pattern on said cloth, an arm carrying said grating being hinged to swing the grating to a position in registry with said plate and to a location away from said plate, and means to apply pressure of said arm to hold said grating under tension against said cloth.

6. A machine for marking a pattern on cloth having the combination of a work table for spreading the cloth thereupon, a plate having slottings denoting the pattern to be marked on said cloth, said table having an opening for receiving said plate in a position underlying said spread cloth, an open container for marking powder being located underneath said table in a position for closure thereof by said plate when in said opening, a grating placeable upon said spread cloth in registry with said plate, means for forcing compressed air into said container for therein agitating the powder, whereby said air will be forced through said slottings, cloth, and grating, and cause said powder to imprint the pattern on said cloth, and mechanism to lift said grating away from said plate and to lower it to a position in contact with said cloth.

7. A machine for marking a pattern on cloth having the combination of a work table for spreading the cloth thereupon, a plate having slottings denoting the pattern to be marked on said cloth, said table having an opening for receiving said plate in a position underlying said spread cloth, an open container for marking powder being located underneath said table in a position for closure thereof by said plate when in said opening, a grating placeable upon said spread cloth in registry with said plate, means for forcing compressed air into said container for therein agitating the powder, whereby said air will be forced through said slottings, cloth, and grating, and cause said powder to imprint the pattern on said cloth, mechanism to lift said grating away from said plate and to lower it in a position in contact with said cloth, and said mechanism being operated by a treadle.

8. A machine for marking a pattern on cloth having the combination of a work table for spreading the cloth thereupon, a plate having slottings denoting the pattern to be marked on said cloth, said table having an opening for receiving said plate in a position underlying said spread cloth, an open container for marking powder being located underneath said table in a position for closure thereof by said plate when in said opening, a grating placeable upon said spread cloth in registry with said plate, means for forcing compressed air into said container for therein agitating the powder, whereby said air will be forced through said slottings, cloth, and grating, and cause said powder to imprint the pattern on said cloth, said means including a compressible receptacle for air, and a tube leading from said receptacle into said container.

9. A machine for marking a pattern on cloth having the combination of a work table for

spreading the cloth thereupon, a plate having slottings denoting the pattern to be marked on said cloth, said table having an opening for receiving said plate in a position underlying said spread cloth, an open container for marking powder being located underneath said table in a position for closure thereof by said plate when in said opening, a grating placeable on said spread cloth in registry with said plate, means for forcing compressed air into said container for therein agitating the powder, whereby said air will be forced through said slottings, cloth, and grating, and cause said powder to imprint the pattern on said cloth, said means including a compressible receptacle for air, a tube leading from said receptacle into said container, and mechanism for compressing said receptacle.

10. A machine for marking a pattern on cloth having the combination of a work table for spreading the cloth thereupon, a plate having slottings denoting the pattern to be marked on said cloth, said table having an opening for receiving said plate in a position underlying said spread cloth, an open container for marking powder being located underneath said table in a position for closure thereof by said plate when in said opening, a grating placeable upon said spread cloth in registry with said plate, means for forcing compressed air into said container for therein agitating the powder, whereby said air will be forced through said slottings, cloth, and grating, and cause said powder to imprint the pattern on said cloth, mechanism to lift said grating away from said plate and to lower it in a position in contact with said cloth, said means including a compressible receptacle for air, a tube leading from said receptacle into said container, and mechanism for compressing said receptacle when said grating is in said lowered position and releasing the receptacle when the grating is lifted.

11. A machine for marking a pattern on cloth having the combination of a work table for spreading the cloth thereupon, a plate having slottings denoting the pattern to be marked on said cloth, said table having an opening for receiving said plate in a position underlying said spread cloth, an open container for marking powder being located underneath said table in a position for closure thereof by said plate when in said opening, a grating placeable upon said spread cloth in registry with said plate, means for forcing compressed air into said container for therein agitating the powder, whereby said air will be forced through said slottings, cloth, and grating, and cause said powder to imprint the pattern on said cloth, mechanism to lift said grating away from said plate and to lower it in a position in contact wtih said cloth, said means including a compressible receptacle for air, a tube leading from said receptacle into said container, mechanism for compressing said receptacle when said grating is in said lowered position and releasing the receptacle when said grating is lifted, and both of said mechanisms being operated by a treadle.

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No references cited.