

(No Model.)

A. M. MUNSON.
STARCHING MACHINE.

No. 566,604.

Patented Aug. 25, 1896.

Fig. 1.

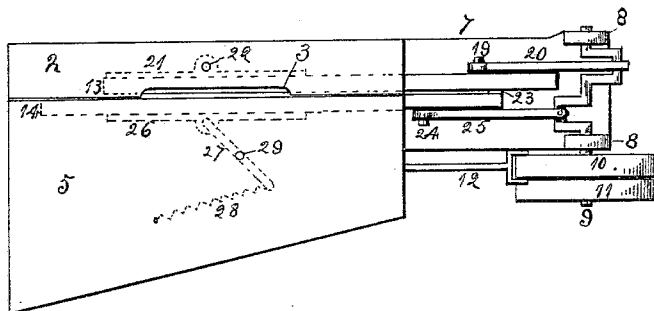


Fig. 2.

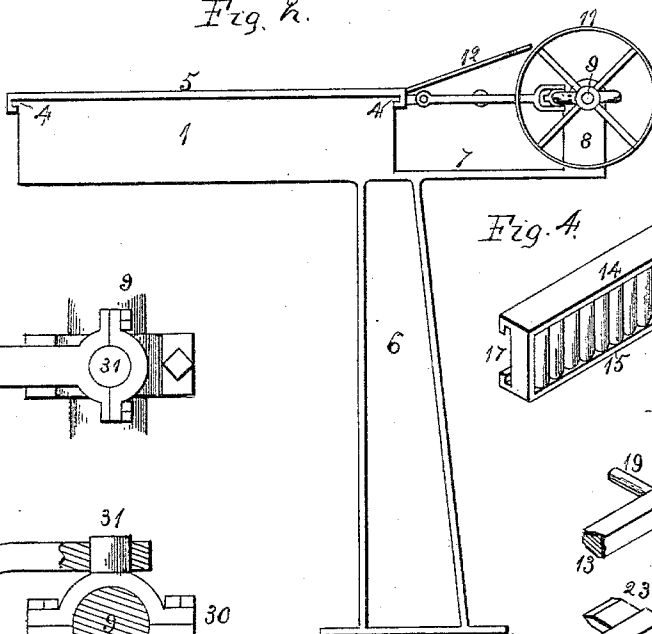


Fig. 6.

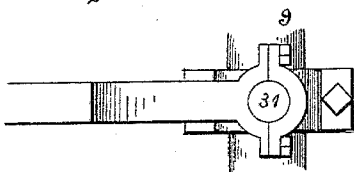


Fig. 7.

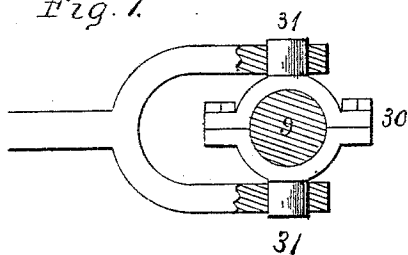


Fig. 4.

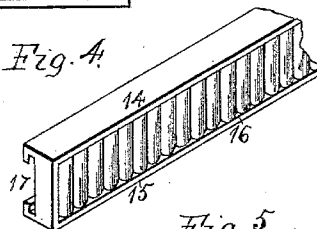


Fig. 5.

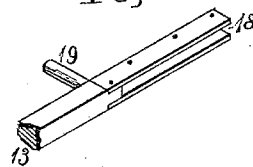
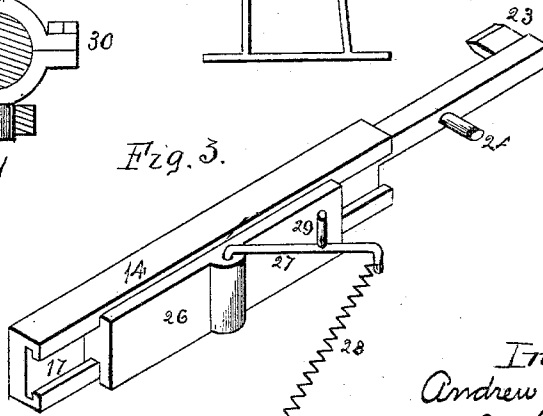


Fig. 3.



Witnesses:
Samuel L. Lynde,
& Bebel.

Inventor:
Andrew M. Munson
By A. O. Bebel
Atty.

UNITED STATES PATENT OFFICE.

ANDREW M. MUNSON, OF ROCKFORD, ILLINOIS, ASSIGNOR OF ONE-FOURTH
TO NELS G. MUNSON, OF SAME PLACE.

STARCHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 566,604, dated August 25, 1896.

Application filed June 21, 1895. Serial No. 553,600. (No model.)

To all whom it may concern:

Be it known that I, ANDREW M. MUNSON, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Starching-Machines, of which the following is a specification.

The object of this invention is to construct a starching-machine in which two reciprocating rubbers are employed.

In the accompanying drawings, Figure 1 is a plan view of my improved starching-machine. Fig. 2 is a side elevation of the same. Fig. 3 is an isometrical representation of the rubber having a connection with the movable top of the starch-receptacle. Fig. 4 is an isometrical representation of the inner face of one of the rubbers. Fig. 5 is an isometrical representation of the other end of the rubber. Fig. 6 is a top view of the pitman connected to the movable top and its crank. Fig. 7 is a side elevation of such connection.

The starch-receptacle 1 is of the usual construction, having a portion 2 of its top stationary and provided with an opening 3, through which the shirts to be starched are passed. The upper edges of the receptacle on its ends are provided with outwardly-extending flanges 4, and the movable portion 5 of the top has its ends in hook form, which receive the flanges, thereby forming a sliding connection between the cover and receptacle.

The starch-receptacle is supported by a pedestal 6, and has an extension 7, supporting the means for reciprocating the rubbers.

From the upper face and outer end of the extension 7 rise bearings 8, within which is supported a shaft 9, having that portion between the bearings in double-crank form, and to one end of the shaft outside of the bearings are secured tight and loose pulleys 10 and 11.

From the edge of the movable portion of the cover next the driving shaft extends a belt-shifter 12, in order that the outward movement of the cover will shift the belt from the tight pulley 10 onto the loose pulley 11.

Within the starch-receptacle are located two rubbers 13 and 14, having their meeting faces 15 formed with vertical corrugated rubbing-surfaces 16. The outer faces of the rub-

bers are formed with a guideway 17, extending in the direction of their length. The outer end of the rubber 13 is provided with a lengthwise groove 18 on its inner face, and from its outer face extends a stud 19. A pitman 20 connects the stud 19 with one of the cranks of the driving-shaft.

A guide 21, fitted in the guideway of the rubber 13, has a connection with the stationary portion of the starch-receptacle by a pin 22 passing through the parts.

The rubber 14, at its outer end, has a projection 23 fitted to enter the lengthwise groove 18, thus forming a connection between the two rubbers, and from the outer face of this rubber extends a stud 24. A pitman 25 has a connection with the stud 24 at one end, its other end connected to one of the cranks of the driving-shaft. This rubber has a guide 26, similar to the guide 21, and, instead of being connected to the starch-receptacle, has a connection with the movable cover by a link 27, one end of which has a pivotal connection with the guide, its other end being connected with the under face of the cover by means of the spring 28, and from the center portion of the link rises a stud 29, which is connected to the cover.

The connection between the pitman 25 and its crank is shown in detail at Figs. 6 and 7. Around the crank is located a box-bearing 30, having vertical studs 31, and around these studs is secured the end of the pitman, so that a universal-joint connection is formed.

In the rotation of the cranks a reciprocating movement is imparted to the rubbers by means of their pitman connection with the cranks, the guides holding the rubbers in proper alinement, and by reason of the rubbers having a connection with each other through the medium of the groove 18 and projection 23 their outer ends will be supported as the upward and downward tendency is equalized, consequently holding them in a horizontal position. The spring 28, acting upon the rubber 14, serves to hold it in a yielding manner.

Upon moving the cover the belt is shifted from one pulley onto the other pulley to stop and start the movement of the rubbers, and when the cover is opened the rubber connected

thereto will move with it, in order that the article to be starched may be placed between the rubbers. The universal-joint connection between this rubber and its crank will permit this movement of the rubber.

5 I claim as my invention—

In a starching-machine, the combination of a starch-receptacle, a movable cover therefor, two rubbers located within the receptacle, 10 means for imparting a reciprocating movement to the rubbers, one of the rubbers having a sliding connection with a guide pivoted

to the receptacle, and the other rubber having a sliding connection with a guide pivoted to the movable cover through the medium of an arm, a spring connecting the arm and cover, and the rubbers having a sliding tongue-and-groove connection with each other outside of receptacle. 15

ANDREW M. MUNSON.

Witnesses:

A. O. BEHEL,
E. BEHEL.