

F. GLATZEL.
 JACQUARD MACHINE.
 APPLICATION FILED JULY 12, 1919.

1,332,122.

Patented Feb. 24, 1920.

2 SHEETS—SHEET 1.

FIG. 2.

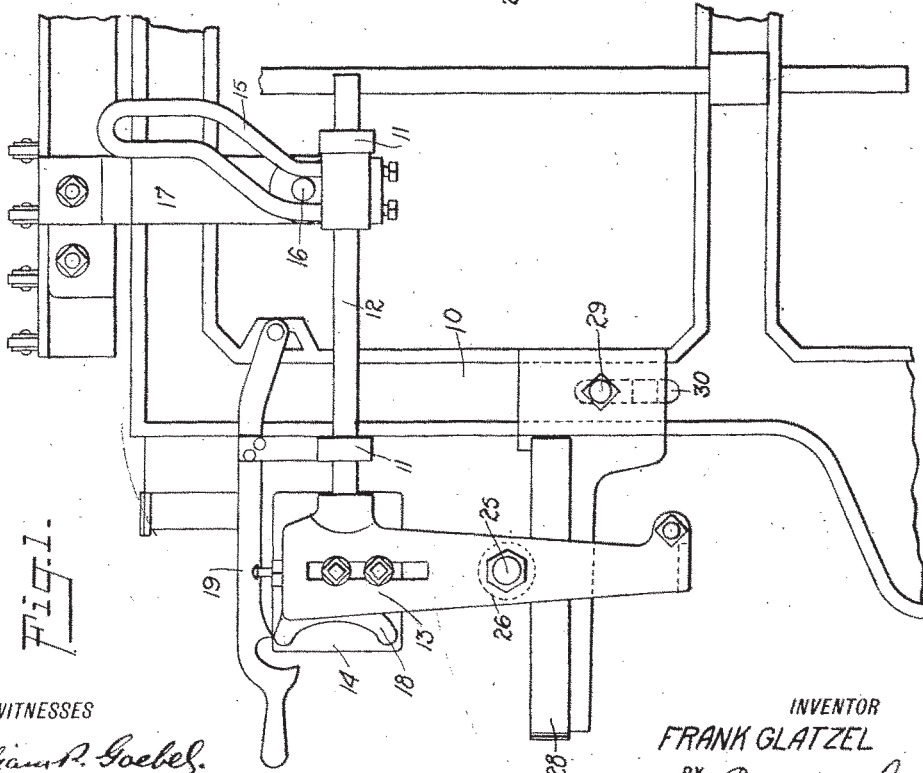
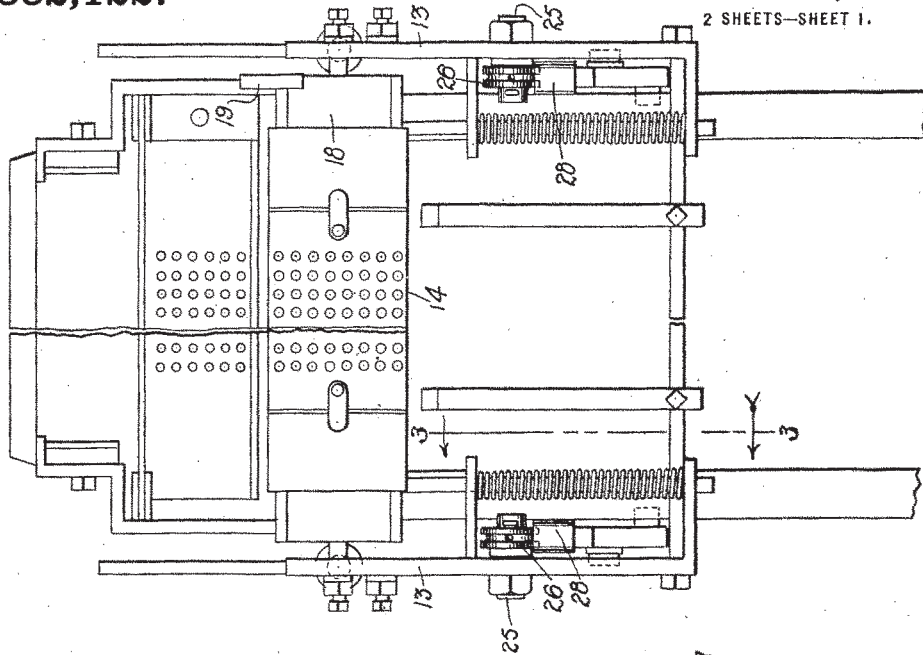


FIG. 1.

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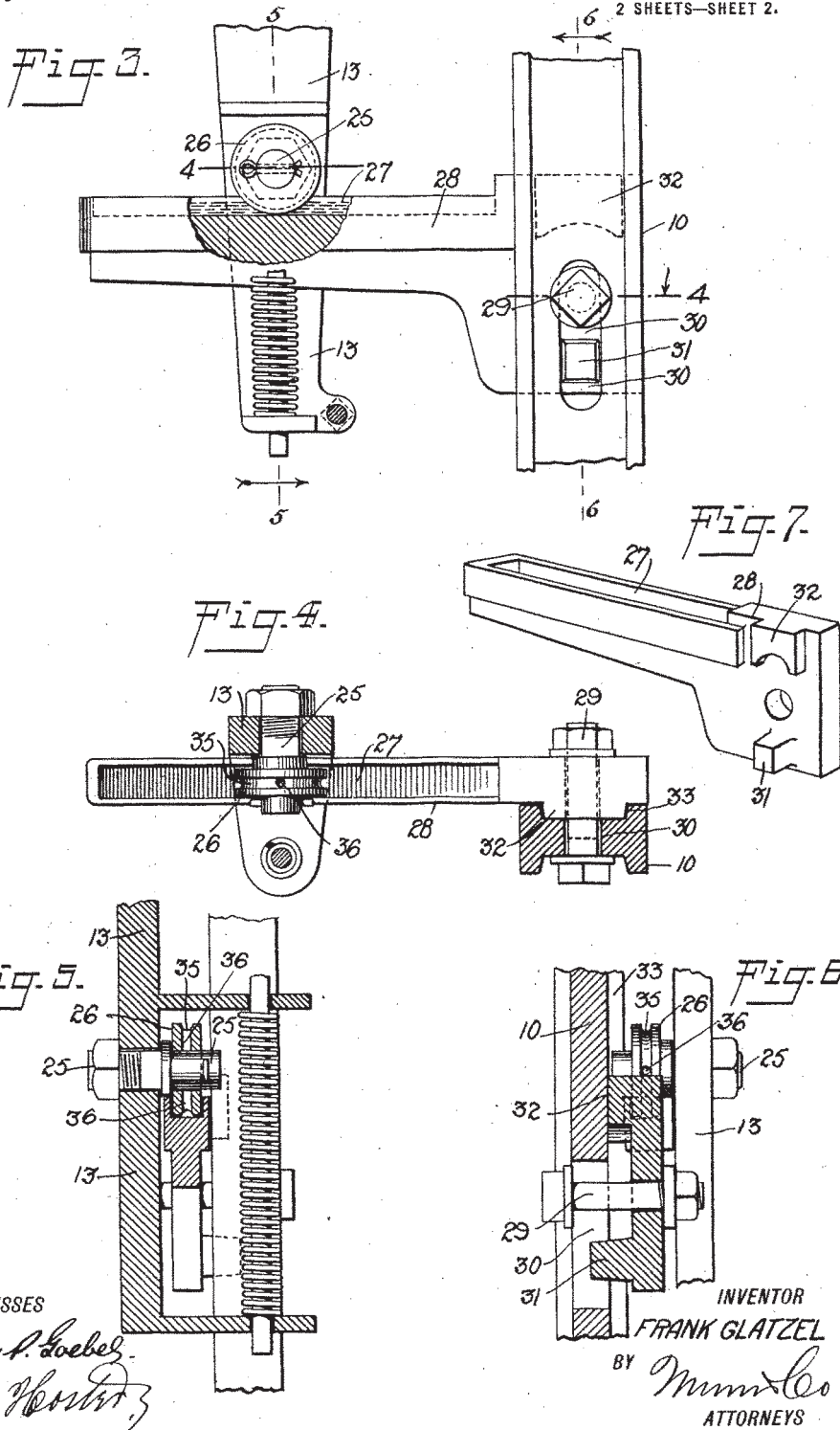
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JACQUARD-MACHINE.

1,332,122.

Specification of Letters Patent.

Patented Feb. 24, 1920.

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To all whom it may concern:

Be it known that I, FRANK GLATZEL, a citizen of the United States, and a resident of Paterson, in the county of Passaic and State of New Jersey, have invented new and useful Improvements in Jacquard-Machines, of which the following is a full, clear, and exact description.

The object of the invention is to provide certain new and useful improvements in jacquard machines whereby the bearings for the frame carrying the card cylinder are relieved of the weight of the card cylinder to prevent binding of the frame in the bearings and to insure an easy reciprocating movement of the frame thereby reducing the wear and tear to a minimum. Another object is to permit of applying the improvements to a jacquard machine as now generally constructed and without requiring changes in the parts thereof.

With these and other objects in view, the invention consists of certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvements as applied to a jacquard machine of ordinary construction;

Fig. 2 is an end elevation of the same;

Fig. 3 is an enlarged side elevation of the improvements as applied, parts being shown in section, on the line 3—3 of Fig. 2;

Fig. 4 is a sectional plan view of the same on the line 4—4 of Fig. 3;

Fig. 5 is a cross section of the same on the line 5—5 of Fig. 3;

Fig. 6 is a similar view of the same on the line 6—6 of Fig. 3; and

Fig. 7 is a perspective view of one of the rails or guideways.

The main frame 10 of the jacquard machine is provided on each side with bearings 11 in which are mounted to reciprocate rods 12 forming parts of the frames or heads 13, in which is journaled the card cylinder 14, to allow the card cylinder to turn in the usual manner. On the rods 12 are secured the cams 15 engaged by pins 16 on the vertical reciprocating frame 17 to

impart a reciprocating movement to the frames 13 and consequently to the card cylinder 14. The card cylinder 14 is provided at one end with the usual wheel 18 engaged by a hook 19 fulcrumed on the frame 10 and serving to turn the card cylinder 14 at the time the latter reciprocates from the right to the left. The construction so far shown and described is the same as now used in the ordinary or standard jacquard machine.

In operation of the jacquard machine, the weight of the card cylinder 14 provides a heavy friction in the bearings 11 and consequently the latter and the rods 12 are subjected to heavy wear, and in order to relieve the bearings 11 and the rods 12 of undue strain, the following arrangement is made: On each of the frames 13 is secured a pivot 25 on which is mounted to turn a roller or wheel 26 mounted to travel in a groove 27 formed lengthwise in the top of a longitudinally extending rail or guideway 28 secured by a bolt 29 to the main frame 10. The bolt 29 extends through a slot 30 formed in the frame 10, and the rail is provided with a lug 31 projecting into the slot to hold the bracket against turning on the bolt 29. In practice, the frame is preferably in the form of channel irons, and the face of the rail 28 is provided with a lug 32 fitting into the back groove 33 of the frame to assist in holding the rail against accidental turning on the bolt 29. The groove 27 is filled with lubricating oil so that the wheel or roller 26 runs in the lubricant. The roller or wheel 26 is provided with a peripheral groove 35 from which extend openings 36 to the central bore of the wheel to cause some of the lubricant to pass from the groove 35 and the openings 36 to the pivot 25 to insure proper lubrication of the roller or wheel 26 on its pivot 25. It will be noticed that the two rollers or wheels 26 are located vertically below the card cylinder 14 and consequently the weight of the card cylinder is sustained by the rollers or wheels 26 traveling on the rails or guideways 28 fixed to the main frame of the jacquard machine. It will also be noticed that the rollers 26 travel in a lubricant and consequently the jacquard machine can be run for a considerable length of time without requiring replenishing of the oil in the grooves 27 of the rails or guideways 28.

It will also be noticed that the rails 28 can be readily adjusted in a vertical direction by their bolts 29 on the main frame 10 so as to relieve the rods 12 and the bearings 5 11 of undue strain thereby insuring an easy reciprocating movement of the frames 13, carrying the card cylinder 14. It will further be noticed that the rails 28 can be readily attached to the frame 10 without disturbing 10 other parts of the machine, and the rollers or wheels 26 and their pivots 25 can be readily attached to the frames 13 without changing the construction thereof.

It is understood that the improvement described consists essentially of the grooved 15 rails 28 attached by the bolts 29 to the main frame, and the rollers or wheels 26 traveling in the grooves 27 and journaled on the pivot 25 secured to the usual frame 13 in which 20 the card cylinder 14 is journaled.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent:—

1. In a jacquard machine, fixed rails on opposite sides of the machine and provided 25 with grooves filled with lubricating oil, and rollers journaled on the frame carrying the card cylinder and mounted to travel on the bottoms of the said grooves, the said rollers being disposed below the card cylinder to 30 sustain the weight thereof.

2. In a jacquard machine, a card cylinder, a reciprocating frame in which the card cylinder is mounted to turn, fixed rails on opposite sides of the machine and extending in 35 the direction of the movement of the said frame, the said rails being provided at top with lengthwise extending grooves, and rollers journaled on the said frame below the said card cylinder and traveling on the bot- 40 toms of the said grooves.

FRANK GLATZEL.