M. POETZSCH.

BURLING OR EXAMINING MACHINE.

APPLICATION FILED FEB. 4, 1919.

1,313,012.

Patented Aug. 12, 1919.

2 SHEETS—SHEET 1.

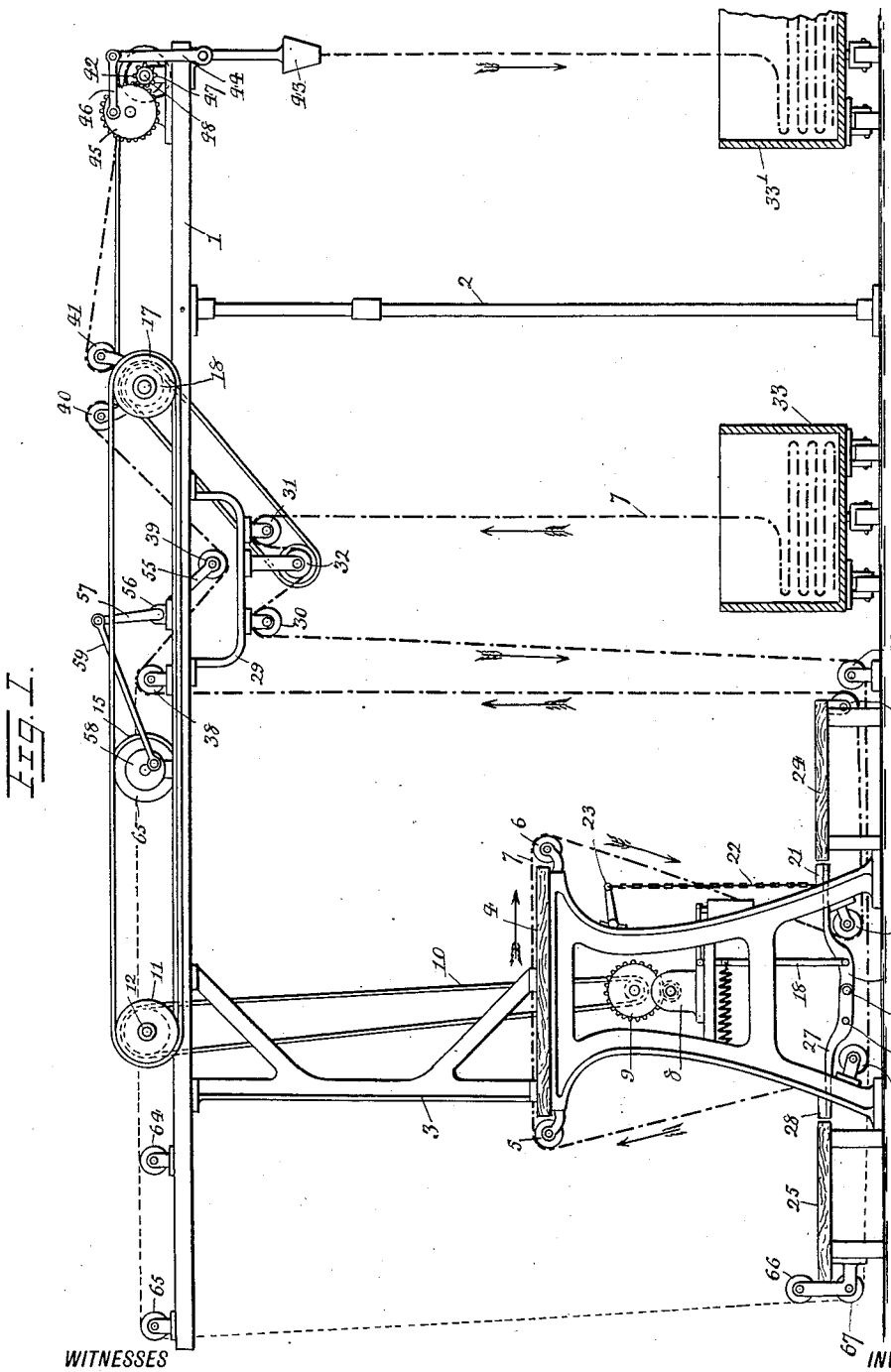

Fig. 1.

WITNESSES

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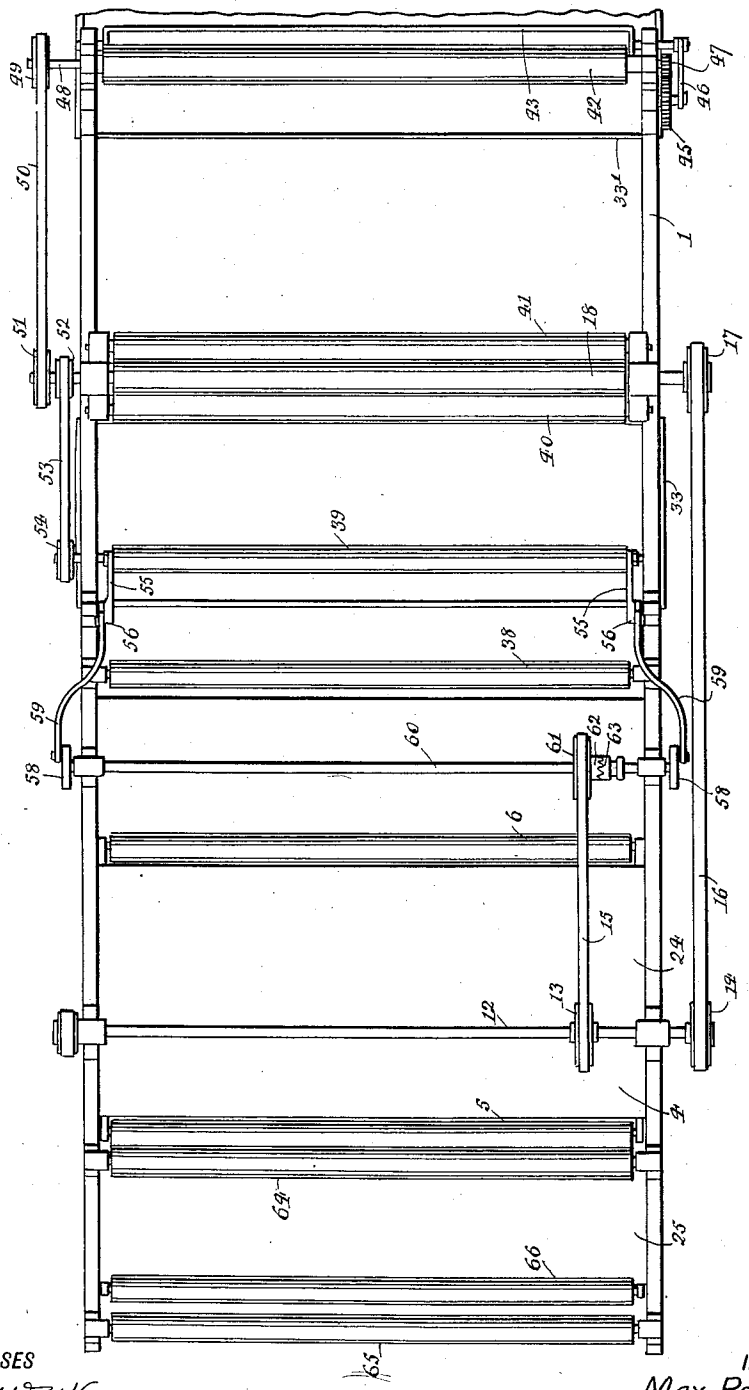

FIG. 2.

WITNESSES

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UNITED STATES PATENT OFFICE.

MAX POETZSCH, OF CLIFTON, NEW JERSEY.

BURLING OR EXAMINING MACHINE.

1,313,012. Specification of Letters Patent. Patented Aug. 12, 1919.

Application filed February 4, 1919. Serial No. 275,046.

To all whom it may concern:

Be it known that I, MAX POETZSCH, a citizen of the United States, and a resident of Clifton, in the county of Passaic and State of New Jersey, have invented a new and Improved Burling or Examining Machine, of which the following is a full, clear, and exact description.

This invention relates to examining or burling machines and has for an object the provision of an improved construction wherein the cloth is passed over a table in such a manner that the person doing the examining may properly observe all parts of the cloth without straining the eyes.

Another object of the invention is to provide a machine for examining which will move a piece of cloth across an examining table quickly for a certain length of time and then very slowly for a certain length of time, or stops for a short time.

A further object of the invention is to provide a machine for examining which may be adjusted to cause the cloth to pass horizontally across an examining table and cause it to pass vertically between guiding rollers for examination from one side.

In the accompanying drawings:

Figure 1 is a side view of a machine disclosing an embodiment of the invention, certain parts being broken away and others shown in dots for illustrating the construction more exactly.

Fig. 2 is a top plan view of the machine shown in Fig. 1.

Referring to the accompanying drawings by numerals, 1 indicates an upper frame supported by any desired number of uprights 2 as well as a framework 3 which carries a table 4. The table 4 is provided with rollers 5 and 6 over which a cloth 7 (known in the trade as a "piece") passes as it moves across the table 4. Beneath the table 4 is arranged a motor 8 of any desired kind, as for instance an electric motor, with which is connected a pulley 9 over which a belt 10 passes. Said belt passes over a second pulley 11 on shaft 12 and the shaft 12 carries pulleys 13 and 14 for driving the belts 15 and 16, belt 16 passing over pulley 17 connected to the roller 18 used in pulling the cloth 7 through the machine. These members and also others are driven by motor 8, which is provided with a switch of any desired kind adapted to be opened and closed by the rod 18 connected to lever 19. The lever 19 is pivotally mounted at 20 so that when the treadle 21 is moved downwardly rod 18 will be moved downwardly and the switch will be opened. A reverse movement of the treadle under the action of chain 22 will close the switch. This chain is connected to a pivotally mounted drum 23 whereby the chain or arm may be readily grasped by the operator standing on the platform 24. In case the platform 25 is used bar 18 is pivotally mounted at 26 on the lever 27 so that when the treadle 28 is depressed the rod will be moved.

Arranged at any convenient point, preferably near the table 4, is a bracket 29 connected to the upper frame 1, said bracket carrying rollers 30 and 31, and a driving roller 32, whereby the cloth 7 as it leaves the wagon 33 is pulled upwardly and moved properly through the rollers on bracket 29. As the cloth leaves roller 30 it passes downwardly over an idler 34 and from thence over idler 35 to the roller 5 and then across the table 4. As it leaves the table 4 it passes over roller 6, idler 36, idler 37, idler 38 and the speed varying roller 39 to the idler 40. From the idler 40 the cloth passes around the driving pulley 18 and from thence over the idler 41 to the discharge roller 42. As it leaves the discharge roller 42 it passes through a swinging folding device 43 of an old and well known type, which is swung back and forth in order to fold the cloth in the wagon 33′. The means for swinging member 43 may consist of an arm 44 rigidly secured to member 43, or connected to the gear wheel 45 by a link 46, said gear meshing with pinion 47 secured to the rod or shaft 48 carrying the roller 42. The shaft 48 carries a pulley 49 which accommodates the belt 50, which belt passes over a pulley 51 secured to the shaft of roller 18, which shaft also carries pulleys 17 and 52, pulley 17 accommodating the belt 16, while pulley 52 accommodates the belt 53. This last named belt passes over pulley 54 secured to the shaft of the speed varying roller 39. In this way power is transmitted to the various rollers and the folding device 43.

In order to properly actuate the speed varying roller 39 said roller is connected to crank arms 55 journaled at 56 on the upper frame 1, but rigidly secured to crank arms 57 which are connected to the rotating disks 58 by links 59. The disks 58 as shown in

Fig. 2 are rigidly secured to shaft 60 on which pulley 61 is loosely mounted, but prevented longitudinal movement. Pulley 61 is provided with a clutch face 62 actuated with the clutch member 63 which is splined on the shaft 60 and operated from any suitable lever so as to be moved into and out of engagement with the clutch face 62, so as to throw the clutch into and out of operation and thereby cause the actuation of the roller 39 or stop its actuation. From the construction described it will be seen that when the power is turned on the roller will move upwardly and downwardly in the regular cycle of movement and consequently will pull on the cloth 7 when moved in one direction and will release the cloth when moved in the opposite direction, notwithstanding the constant pull created by roller 18. This motion of roller 39 will cause the cloth to pass over the table 4 at one period of time comparatively rapidly and at another time comparatively slowly. If desired the parts could be arranged so that the cloth would completely stop its movement across the table, though ordinarily if it will slow down and then speed up the desired results are secured.

An examining table of this kind is used in factories and elsewhere for examining cloth after it has been woven so as to detect objectionable spots, knots, or the like. In case the cloth is found to have knots therein or lumps the examining person will remove said knots by the use of a special pair of pincers. This is done while the cloth is moving very slowly across the table, but as the person examining the cloth must constantly look at the table the change in speed relieves the eyes almost to the same extent as if the cloth stopped, while at the same time allowing the general feeding of the cloth through the machine to be at a satisfactory speed and also allowing the proper examination and removal of knots and other objectionable matter found in the cloth.

In some instances it is desired to look through the cloth instead of examining the same on a table similar to table 4, when this is the case the cloth, or piece, is not passed over table 4, but is caused to move from roller 38 over rollers 64, 65, 66 and 67 to roller 55. This will cause the cloth to travel in a vertical line adjacent platform 25 so that a person examining the cloth may look through the cloth. If desired either a natural or artificial light may be arranged adjacent the vertical section of the piece in order that any faults may be more readily observed.

What I claim is:

1. An examining machine of the class described, comprising a plurality of rollers, one of which constitutes a cloth-feeding roller, a swinging member movable across the path of the cloth, and positive operating mechanism causing said member to move in both directions to vary the speed of the moving cloth.

2. An examining machine of the class described, comprising a plurality of rollers, one of which constitutes a cloth-feeding roller, a pair of levers, a member carried by the levers, and positive actuating means causing an oscillation of said levers to move the member against the cloth and force the same out of a straight line between two of said rollers, whereby the speed of movement of the cloth is intermittently retarded.

3. An examining machine of the character described, comprising a frame, a stationary table connected with the frame, means for guiding a strip of cloth over said table, means mounted on the frame for moving the cloth at a uniform speed from a starting point to a discharge point, means for intermittently causing the cloth to move rapidly and then slowly over said table without varying the uniform travel of the cloth through the machine, said means comprising a roller, a pair of pivotally mounted supporting arms connected with the roller, means including a rotating disk for rocking said roller back and forth and causing the roller to move back and forth transversely of the length of the cloth so that the cloth at one time will have a longer path of travel than at another, and means connecting said disk and said driving means so that they will operate in timed relationship with each other.

MAX POETZSCH.