

No. 725,680.

PATENTED APR. 21, 1903.

S. E. DART.
MACHINE FOR GLASSING PAPER OR LEATHER.
APPLICATION FILED FEB. 11, 1903.

NO MODEL.

3 SHEETS—SHEET 1.

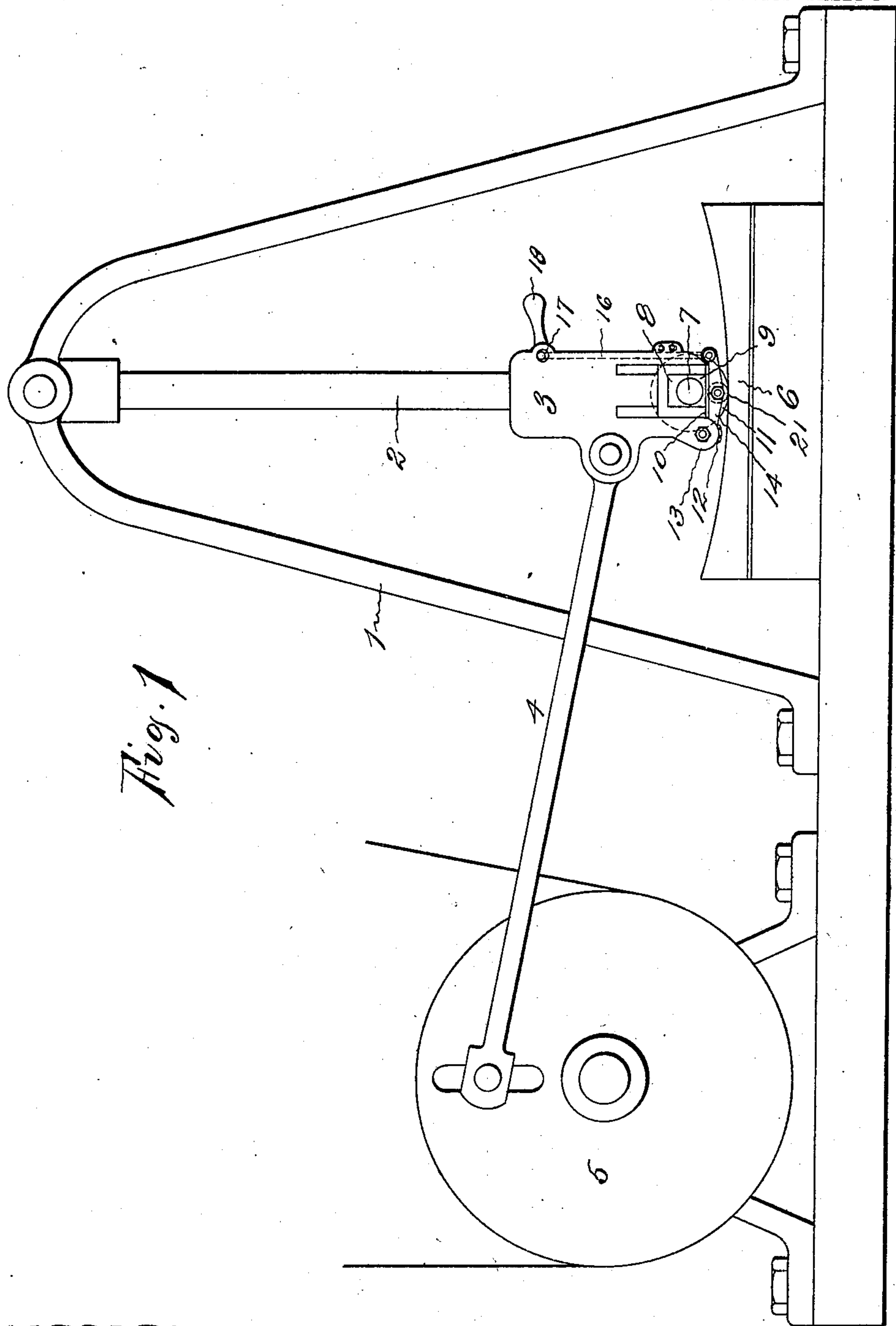


Fig. 1

Witnesses:

Ethel M. Lowe.

Ernest A. Sherman

Inventor:

Samuel E. Dart, by

Harry A. Williams atty.

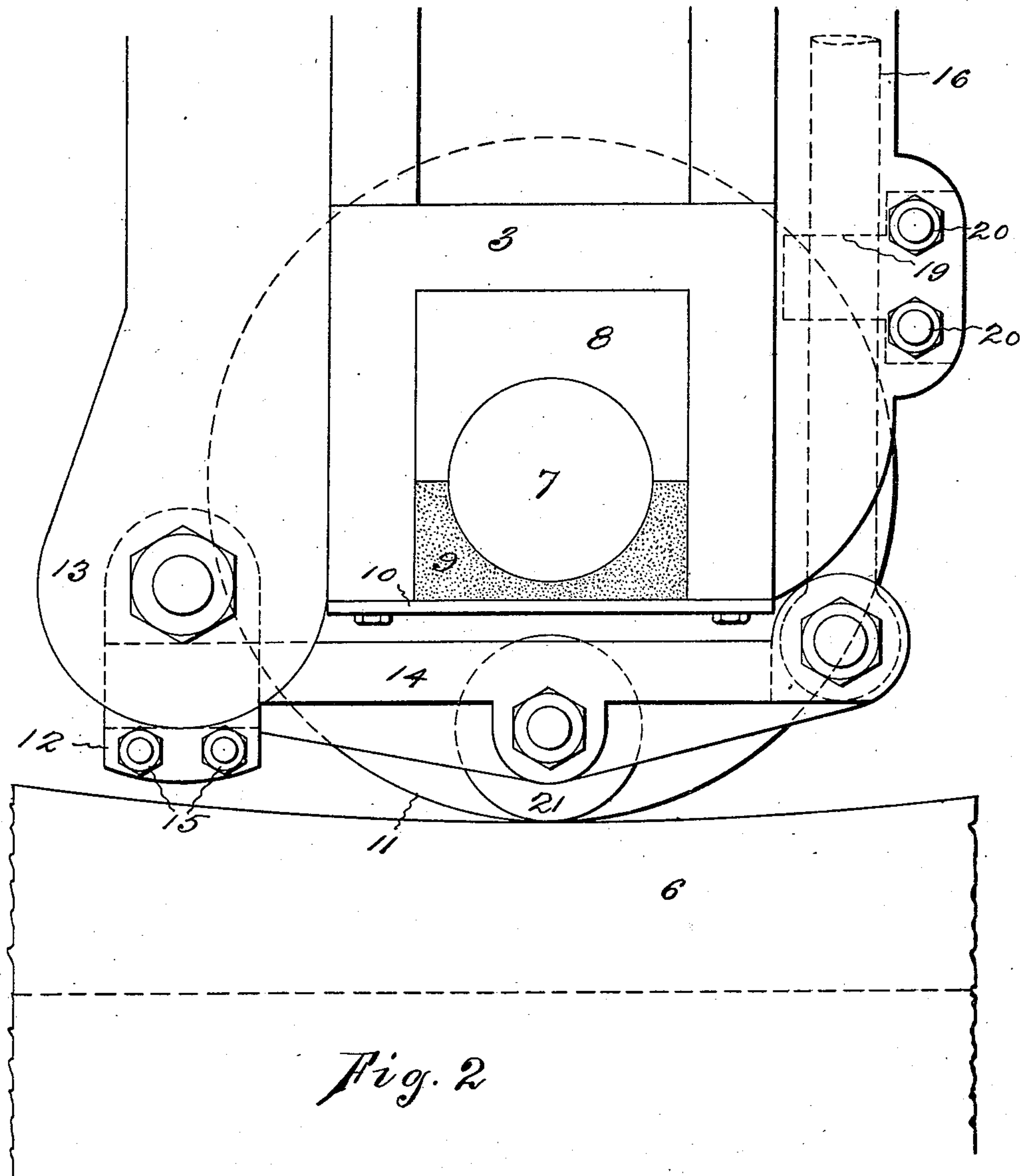
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Ernest Sherman

Inventor:

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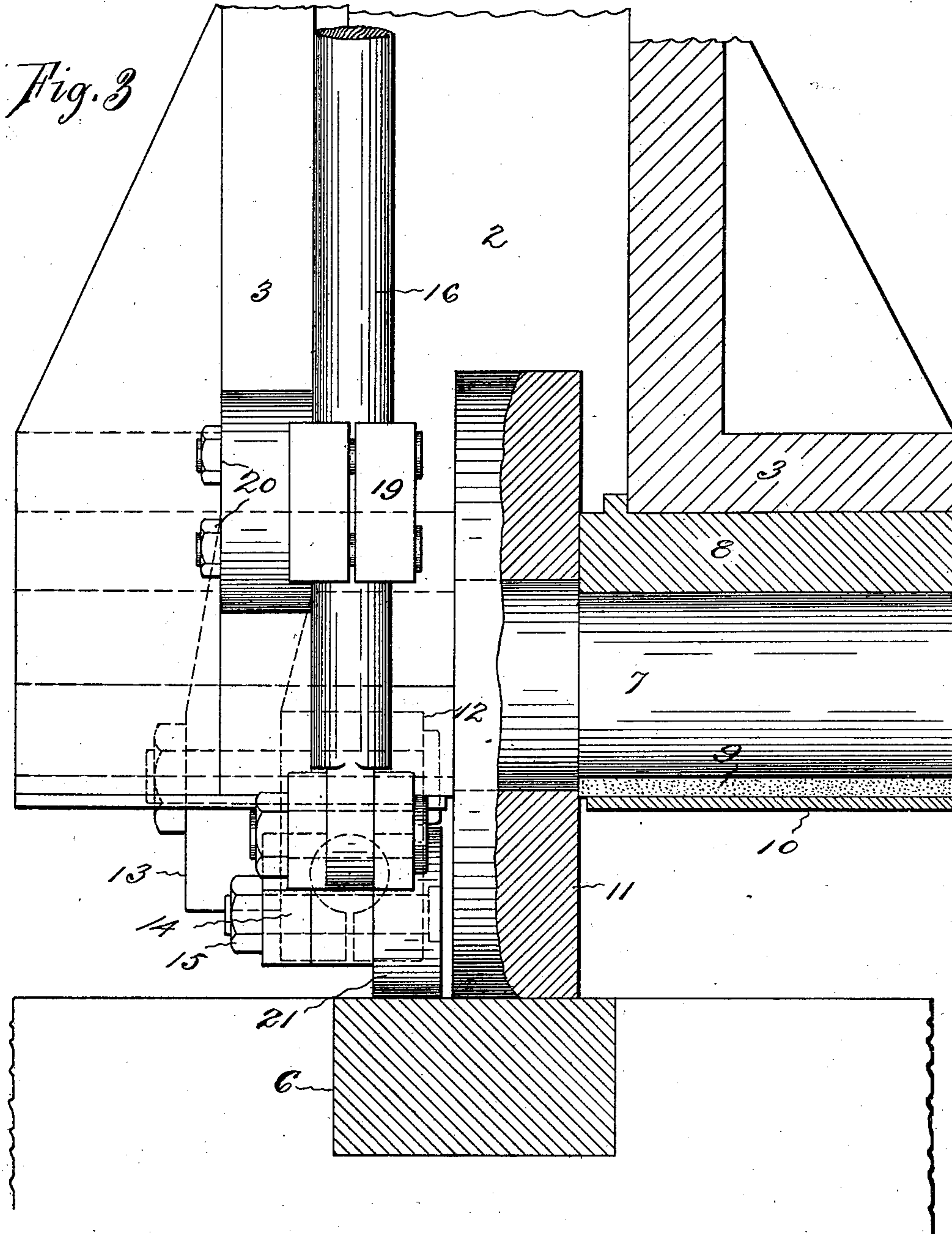
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3 SHEETS—SHEET 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

SAMUEL E. DART, OF SOUTH MANCHESTER, CONNECTICUT.

MACHINE FOR GLASSING PAPER OR LEATHER.

SPECIFICATION forming part of Letters Patent No. 725,680, dated April 21, 1903.

Application filed February 11, 1903. Serial No. 142,925. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL E. DART, a citizen of the United States, residing at South Manchester, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Machines for Glassing Paper or Leather, of which the following is a specification.

This invention relates to a machine for smoothing and giving a hard finish and luster to paper or leather.

The object of the invention is to provide a simple oscillatory machine with means for compressing and smoothing paper or leather and at the same time imparting a gloss or luster.

It has been the custom in finishing thick paper, such as press-board, to pass it between calendering-rolls or under other rolling-surfaces for compressing and smoothing the fibers and then transfer it to a machine which by means of the rubbing friction of a tool produced a gloss or luster on the surface. This necessitated two independent expensive machines in a mill and was the source of considerable waste, for it is difficult to hold paper to the bed of a glassing-machine while it is being burnished by the rubbing friction of the tool so that it would not become torn and destroyed, and it is practically impossible to hold and feed leather for such purpose without its becoming wrinkled and the texture destroyed in spots.

The machine that embodies the present invention has an oscillatory beam with a head which has a roll that is caused to press down upon and travel back and forth over the surface of the paper or leather, so as to compress it, harden it, and give it a smooth surface, and a burnisher which, while the roll is condensing and smoothing the paper or leather and holding it against movement, rubs over the smoothed surface and gives it a gloss, thus performing both operations with a single machine and at the same time obviating the danger of the destruction of the sheets while being burnished.

Figure 1 of the accompanying drawings shows a side elevation of a machine that embodies the invention. Fig. 2 shows, on larger scale, a side elevation of the lower end of the head on the beam of this machine. Fig. 3

shows an edge elevation of the lower end of the head with parts cut in section.

The frame 1 of the machine that is shown is a metal arch. The beam 2 is hinged at its upper end to the top of the arch. The head 3, attached to the lower end of the beam, is connected by a link 4 with the crank-disk 5, that is driven by any suitable source of power. The bed 6, that is located beneath the head, has its upper surface formed on the arc of a circle the center of which is coincident with the axis of the hinge of the beam. A shaft 7 turns freely between bearing-blocks 8 and lubricating-blocks 9, fitted in the lower part of the head and held in position by plates 10, which are fastened to the under side of the head. A roller 11, preferably formed of steel, is keyed to the shaft. This roller is adapted to bear down upon and to roll back and forth across the material on the upper concave surface of the bed as the beam is oscillated by the crank. A block 12 is pivotally held to a lug 13, that extends outwardly from one edge of the head. This block has an opening which receives one end of a lever 14, and it is split and provided with clamp-bolts 15, so that the lever may be turned and clamped in the desired position. The other end of the lever is connected with a rod 16, that extends upwardly and is connected with an eccentric 17, provided with a handle 18. By turning this handle the end of the lever may be raised or lowered, as desired. A clamp 19 is secured to one edge of the head about the rod 16, and after the lever has been adjusted the bolts 20 are tightened, so as to clamp the rod and hold the lever in the desired position.

Rigidly fastened to the lever is a disk 21, that may be made of stone, glass, steel, or other material capable of being ground very smooth. This disk is adapted to press down upon and to rub back and forth upon the surface of the material placed upon the bed when the beam is oscillated.

The paper or leather which is to be finished by this machine is fed along the bed by hand or other suitable means and is first compressed, hardened, and smoothed by the pressure of the roller and then is rubbed, polished, and given a luster by the friction of the glassing-stone, which travels with the

roller. The paper or leather is firmly held to the bed by the smoothing-roller close to the glassing-stone, so that it cannot slip and become torn or wrinkled by the stone. The parts are all capable of adjustment, so that the desired pressure may be placed upon the paper or leather when the machine is operated. As a result of the use of this head, with the roller which compresses and smooths the material, while at the same time holding it for the burnisher, material is saved from destruction, time is economized, less labor is necessary, and the machine may be made to run faster.

By reason of the fact that the burnisher lies close to the smoothing-roller the material is given a very satisfactory finish, for the burnisher acts upon the material immediately after it has been compressed by the roller and before it has had a chance to change its condition, as is the case when the sheets or skins are transferred from a compressing-machine to a burnishing-machine.

I claim as my invention—

1. In a machine for glassing paper or leather, an oscillatory head carrying a rotatory roll and a burnisher, substantially as specified.

2. In a machine for glassing paper or leather, an oscillatory head carrying a rotatory roll and an adjustable rubbing-burnisher, substantially as specified. 30

3. In a machine for glassing paper or leather, an oscillatory head carrying a rotatory roll, an adjustable lever and a burnisher secured to the lever, substantially as specified. 35

4. In a machine for glassing paper or leather, an oscillatory head carrying a rotatory roll, a pivoted lever, means for adjusting the lever, and a burnisher fastened to the lever, substantially as specified. 40

5. In a machine for glassing paper or leather, an oscillatory head carrying a rotatory roll, and a disk clamped to the head, substantially as specified.

6. In a machine for glassing paper or leather, an oscillatory head carrying a rotatory roller and a non-rotatory disk adjustable vertically and horizontally with relation to the roller, substantially as specified. 45

SAMUEL E. DART.

Witnesses:

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