No. 656,355. Patented Aug. 21, 1900.

A. I. JACOBS.

PASTING MACHINE.

(Application filed Apr. 7, 1900.)

(No Model.) 3 Sheets—Sheet 1.

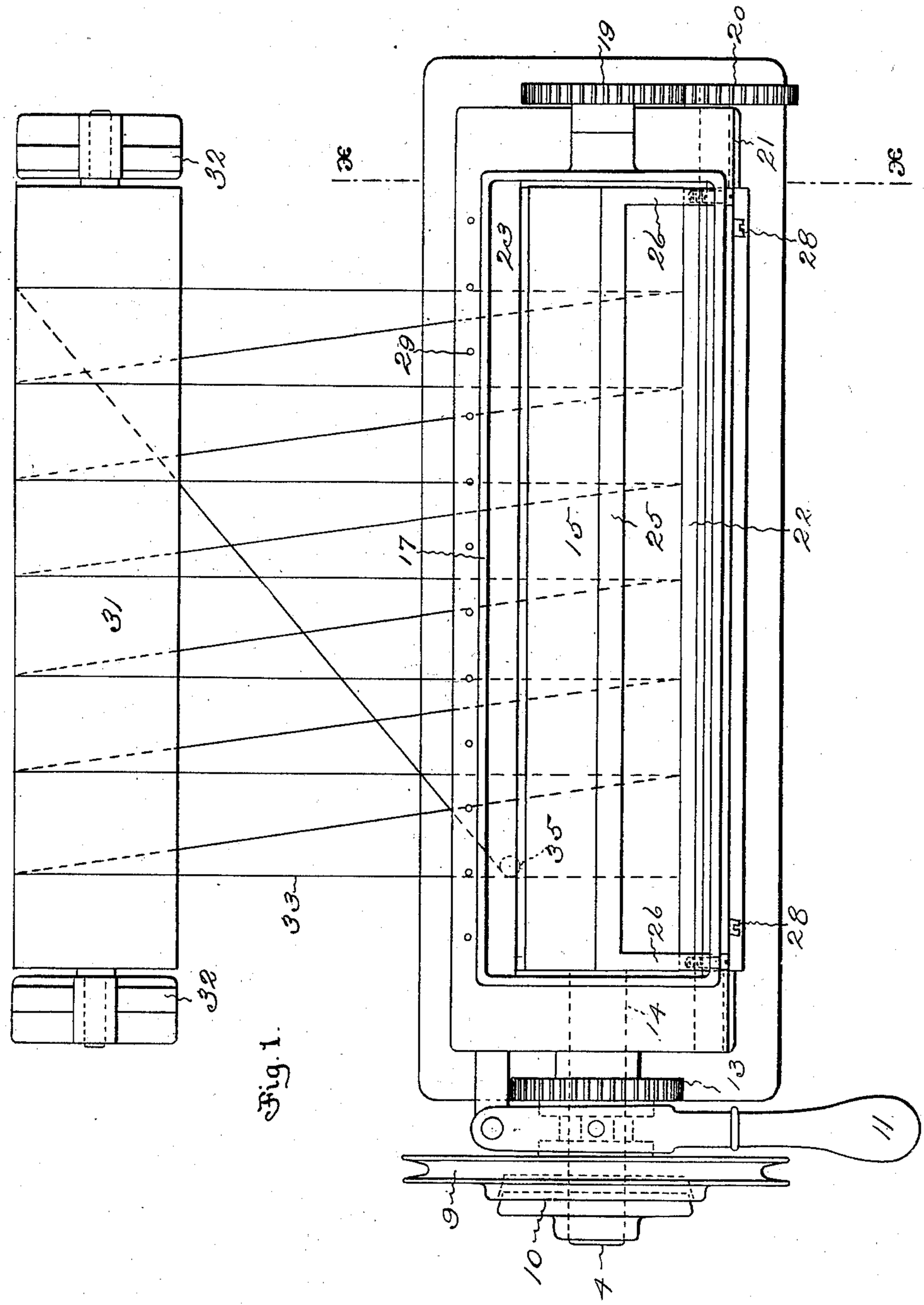

Fig. 1.

Witnesses:
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C. E. Burtland.

Inventor:
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(No Model.) 3 Sheets—Sheet 2.

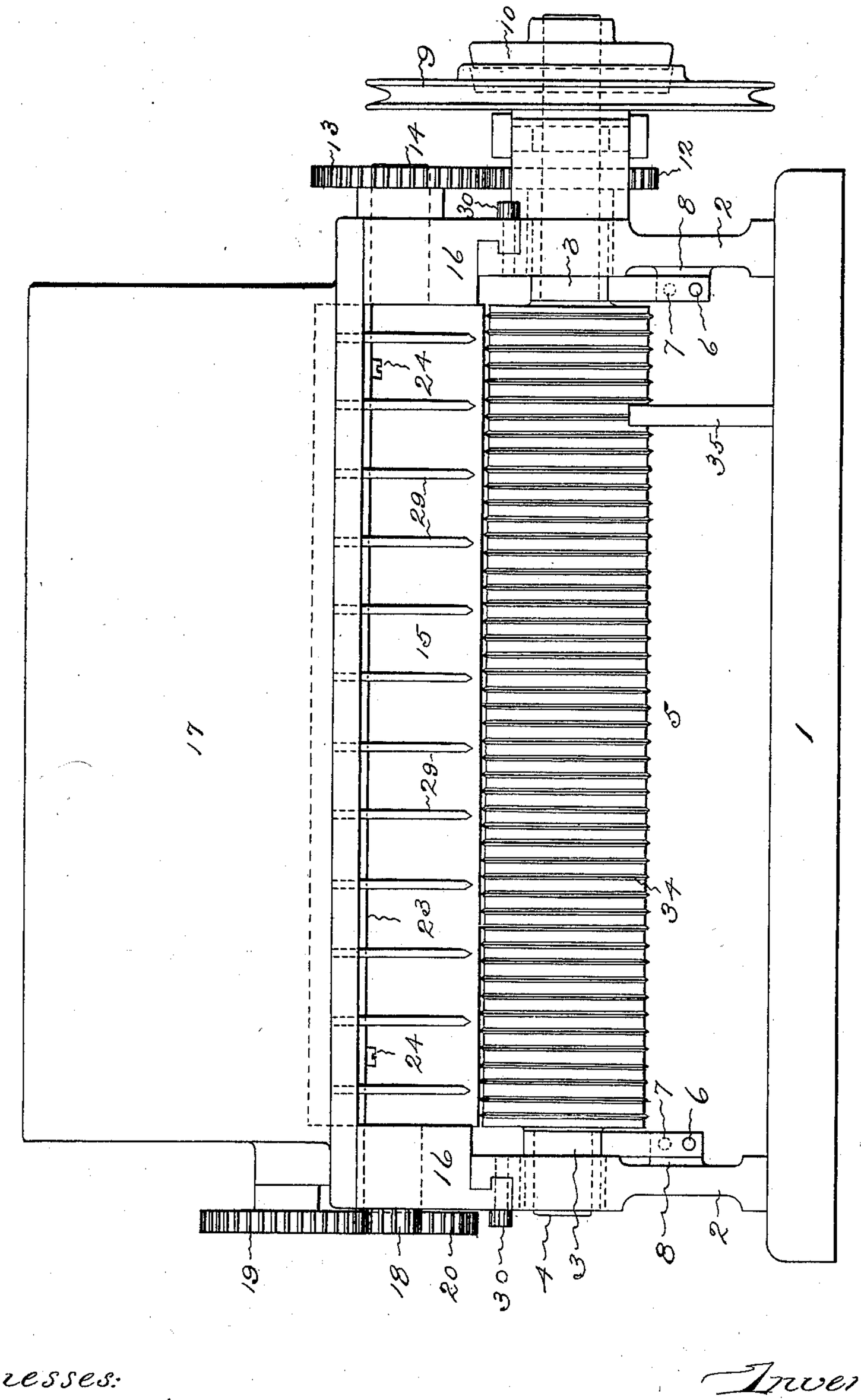

Fig 2.

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(No Model.) 3 Sheets—Sheet 3.

Fig. 4.

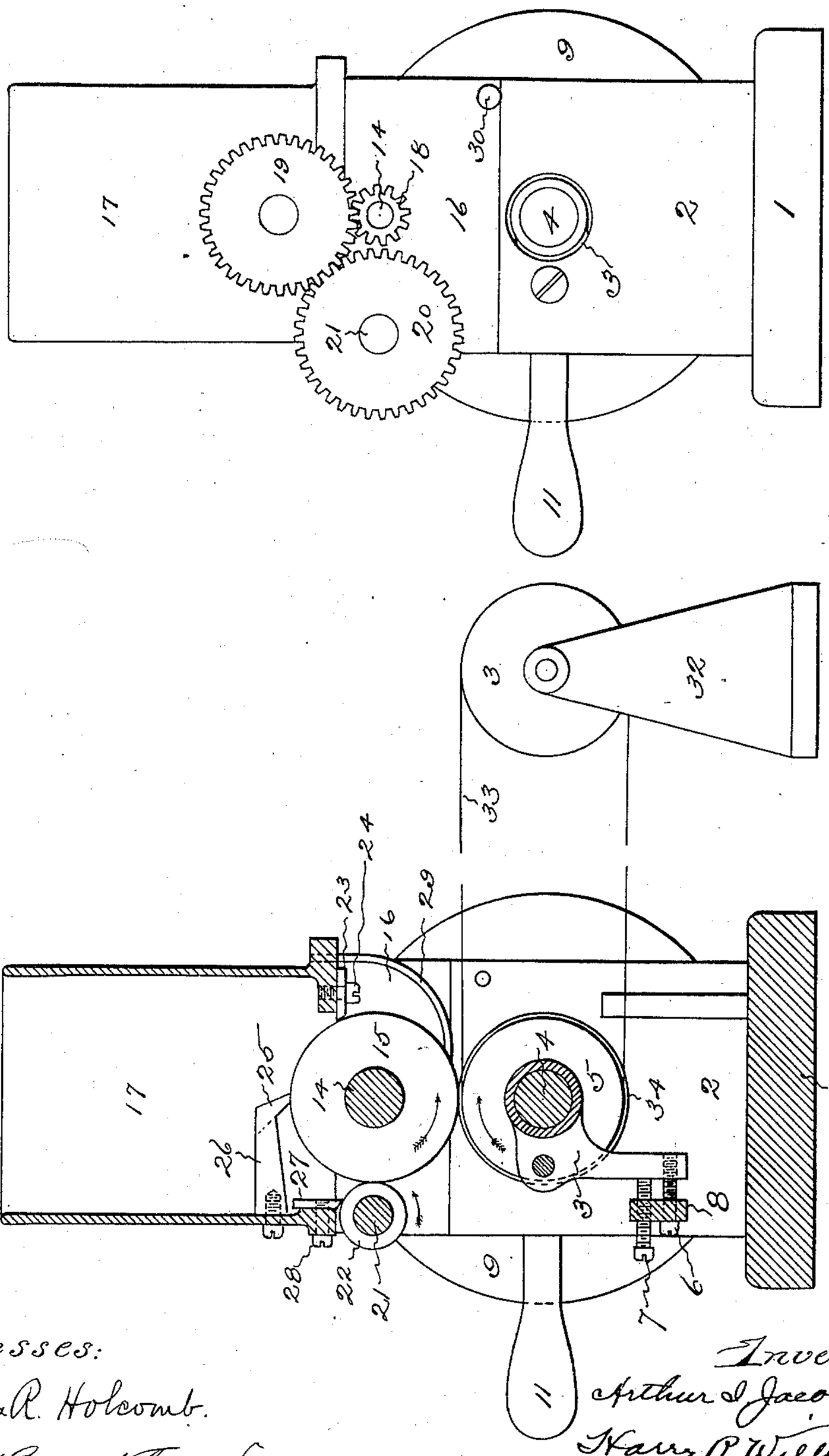

Fig. 3.

Witnesses:
Virginia R. Holcomb.
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UNITED STATES PATENT OFFICE.

ARTHUR I. JACOBS, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE SMYTH MANUFACTURING COMPANY, OF SAME PLACE.

PASTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 656,355, dated August 21, 1900.

Application filed April 7, 1900. Serial No. 12,010. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR I. JACOBS, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Pasting-Machines, of which the following is a specification.

This invention relates to those machines which are employed for distributing paste, glue, or similar cementing or adhesive substances upon sheets of paper, cloth, or the like thin flexible material.

The object of the invention is to provide a simple, convenient, and cheap machine of this nature which is particularly adapted for evenly distributing paste upon sheets of paper designed to be used for covering the boards of the cases of books.

Figure 1 of the drawings shows a plan of the machine. Fig. 2 is a view of the back side of the machine. Fig. 3 is a vertical section on the plane indicated by the broken line $x\,x$ of Fig. 1, and Fig. 4 is a view looking at one end of the machine.

The bed 1 and the standards 2 at each end of the bed are preferably cast integral of iron. An adjustable bracket 3 is pivoted to the inside of each standard. The upper ends of these brackets are provided with bearings for the shaft 4 of the feed-roll 5, while the lower ends of the brackets are adapted to be drawn forwardly by screws 6 and to be pushed backwardly by screws 7, that pass through perforations in lugs 8, that project from the inner walls of the standards. On one end of the feed-roll shaft is a driving-pulley 9, that is adapted to be belted to any source of power. This pulley is fastened to or loosened from the shaft by a clutch 10, that is operated by the handle 11. Fixed on the feed-roll shaft adjacent to the clutch is a gear 12, that meshes with a gear 13 on the end of a shaft 14, which bears the distributing-roll 15. This shaft is supported by the legs 16 of the paste-receptacle 17 in such position that the roll occupies an opening in the bottom of the receptacle. The distributing-roll shaft at one end bears a pinion 18, which meshes with a gear 19, that is in mesh with a gear 20 on the shaft 21 of the spreading-roll 22, that is supported in the opening in the bottom of the paste-receptacle adjacent to the distributing-roll. By means of this gearing the distributing-roll and the spreading-roll are caused to rotate in the same direction. A gate 23 is attached to the under side of the bottom of the paste-receptacle by screws 24, so that it is adjustable toward and from the distributing-roll to prevent the leakage of paste past the distributing-roll. This gate is held with its edge just out of contact with the surface of the distributing-roll, so as to prevent the outflow of paste, but permit whatever paste there is on the surface of the distributing-roll to pass into the receptacle before it is scraped off. A scraper 25 is by arms 26 held in contact with the upper part of the distributing-roll to keep the paste from becoming coated upon that roll. Secured to the inside wall of the paste-receptacle, at the bottom and adjacent to thes preading-roll, is a scraper 27. When the screws 28, that hold this scraper, are loosened, it may be adjusted toward and from the spreading-roll to keep that roll clean and prevents the leakage of paste past it. A number of curved fingers 29 are secured to the bottom of the paste-receptacle, so as to bear against the distributing-roll and prevent the pasted material from adhering to the surface of the roll.

The bottoms of the paste-receptacle legs and the tops of the bed-standards are tongued and grooved, so that the parts may be slid together horizontally, and when in proper position pins 30 are thrust through the tongue-and-grooved parts to prevent their lateral displacement. When these pins are withdrawn, the paste-receptacle, with the spreading and distributing rolls and separating-fingers, may be removed for washing and cleaning off the adhesive substance, leaving the feed-roll and the bed in working position. A roll 31 is supported by brackets 32 at a suitable distance from the feed-roll, and around this roll and the feed-roll an apron 33 is arranged to pass. It is preferred that this apron shall be a single thread wound from one roll to the other and then having its ends joined. The feed-

roll may be grooved or may have ribs 34, so that the apron-threads will run over the apron-surface, which is of less diameter than the feed-surface, and keep a proper distance apart. A stud 35 may be employed for guiding the thread from the place of the last loop around the apron-roll to the place of beginning on the feed-roll.

The spreading-roll allows the distributing-roll to carry down from the receptacle but a thin even film of paste. The paste thus evenly spread upon the distributing-roll is distributed upon the upper surfaces of the sheets that are passed between the feed-roll and the distributing-roll. These pasted sheets are carried upon the moving apron until they are removed by the operative and used for inclosing the boards of the bookcases. The feed-roll is adjusted toward and from the distributing-roll by means of the screws that engage the ends of the brackets, so that it will correctly feed the thin sheets which are passed through the machine. Large sheets of thin paper may be rapidly passed between the feed-roll and distributing-roll and evenly coated with the desired quantity of paste. These sheets are employed for covering paper-boards which are used for book-covers. There is no leakage of paste past the rolls, and the paste is not permitted to become thickly coated upon the rolls in such manner as to close the opening between the spreading and distributing rolls.

The machine is simple to build, convenient to operate, and is easily cleaned.

I claim as my invention—

1. A pasting-machine having a bed with standards, a paste-receptacle with an opening in its bottom, removably supported by the standards, a distributing-roll and a spreading-roll located in the opening in the bottom and supported by the walls of the receptacle, a feed-roll with feed-surfaces and apron-surfaces, the feed-surfaces having a greater diameter than the apron-surfaces, located below and adjacent to the distributing-roll and supported by the standards, mechanisms for rotating the rolls, an apron-roll located at a distance from the feed-roll, an apron passing around the feed-roll on the apron-surfaces below the feed-surfaces and around the apron-roll, and fingers attached to the removable paste-receptacle and extending therefrom into contact with the distributing-roll, substantially as specified.

2. A pasting-machine having a bed with standards, a paste-receptacle with an opening in its bottom, removably supported by the standards, a distributing-roll and a spreading-roll in the opening in the bottom of the receptacle, brackets pivotally attached to the inside of the standards, a feed-roll supported by the brackets below and adjacent to the distributing-roll, mechanism for adjusting the brackets, and mechanism for rotating the rolls, substantially as specified.

3. A pasting-machine having a bed with standards, a paste-receptacle with an opening in its bottom, removably supported by the standards, a distributing-roll and a spreading-roll in the opening in the bottom of the receptacle, brackets pivotally attached to the inside of the standards, a feed-roll supported by the brackets below and adjacent to the distributing-roll, mechanisms for adjusting the brackets, mechanisms for rotating the rolls, an apron-roll located at a distance from the feed-roll, and an apron passing around the feed-roll that is supported by the adjustable brackets and around the apron-roll that is located at a distance, substantially as specified.

4. A pasting-machine having a paste-receptacle with an opening in its bottom, a distributing-roll and a spreading-roll in the opening in the bottom of the receptacle, a gate extending along and out of contact with the distributing-roll, a scraper inside of the receptacle extending along and in contact with the distributing-roll, a scraper extending along and in contact with the spreading-roll, a feed-roll below the distributing-roll and mechanisms for rotating the distributing-roll and spreading-roll in the same direction, substantially as specified.

5. A pasting-machine having a paste-receptacle with an opening in its bottom, a distributing-roll and a spreading-roll in the opening in the bottom of the receptacle, a gate extending along and out of contact with the distributing-roll, a scraper inside the paste-receptacle extending along and in contact with the distributing-roll, a scraper extending along and in contact with the spreading-roll, a feed-roll below the distributing-roll, mechanisms for rotating the distributing-roll and the spreading-roll in the same direction, an apron-roll and an apron passing around the feed-roll and the apron-roll, substantially as specified.

6. A pasting-machine having a base with upright standards, a removable paste-receptacle with an opening in its bottom, and legs at its ends, the said standards and legs being tongue-and-grooved so as to slide together horizontally, means for holding the legs and standards fixed horizontally with relation to each other, a distributing-roll and a spreading-roll in the opening in the bottom of and removable with the receptacle, a feed-roll below the distributing-roll and supported by the standards, and mechanisms for rotating the distributing-roll and the feed-roll in the same direction, substantially as specified.

7. A pasting-machine having a base with upright standards, a removable paste-receptacle with openings in its bottom and legs at its ends, the said standards and legs being

tongue-and-grooved so as to slide together horizontally, means for holding the legs and standards fixed horizontally with relation to each other, a distributing-roll and a spreading-roll in the opening in the bottom of the receptacle, a feed-roll below the distributing-roll and supported by the standards, mechanisms for rotating the distributing and spreading rolls in the same direction, an apron-roll and an apron passing around the feed-roll and apron-roll, substantially as specified.

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Witnesses:
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