R. KRAUS.

MACHINE FOR COATING WALL PAPER.

APPLICATION FILED APR. 22, 1908.

916,722.

Patented Mar. 30, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

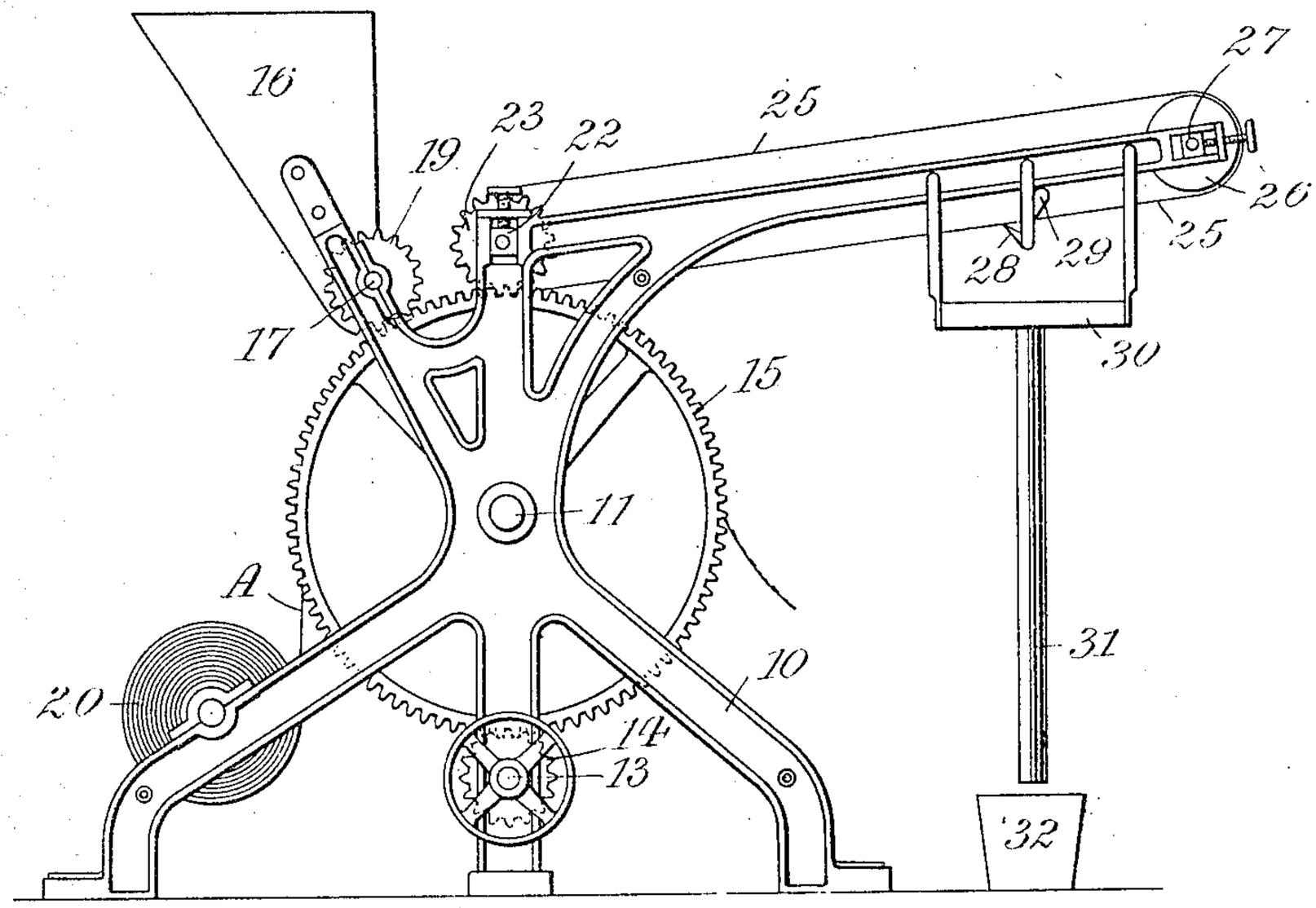

Fig. 2.

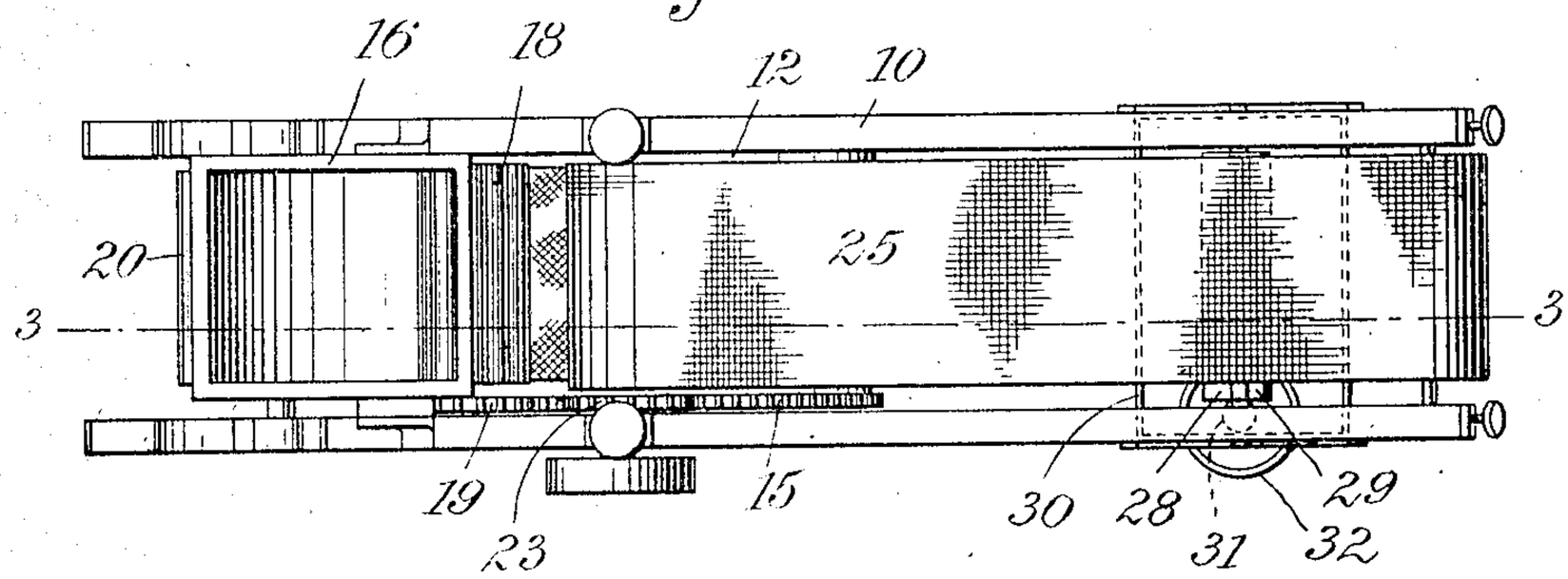

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Fig. 3.

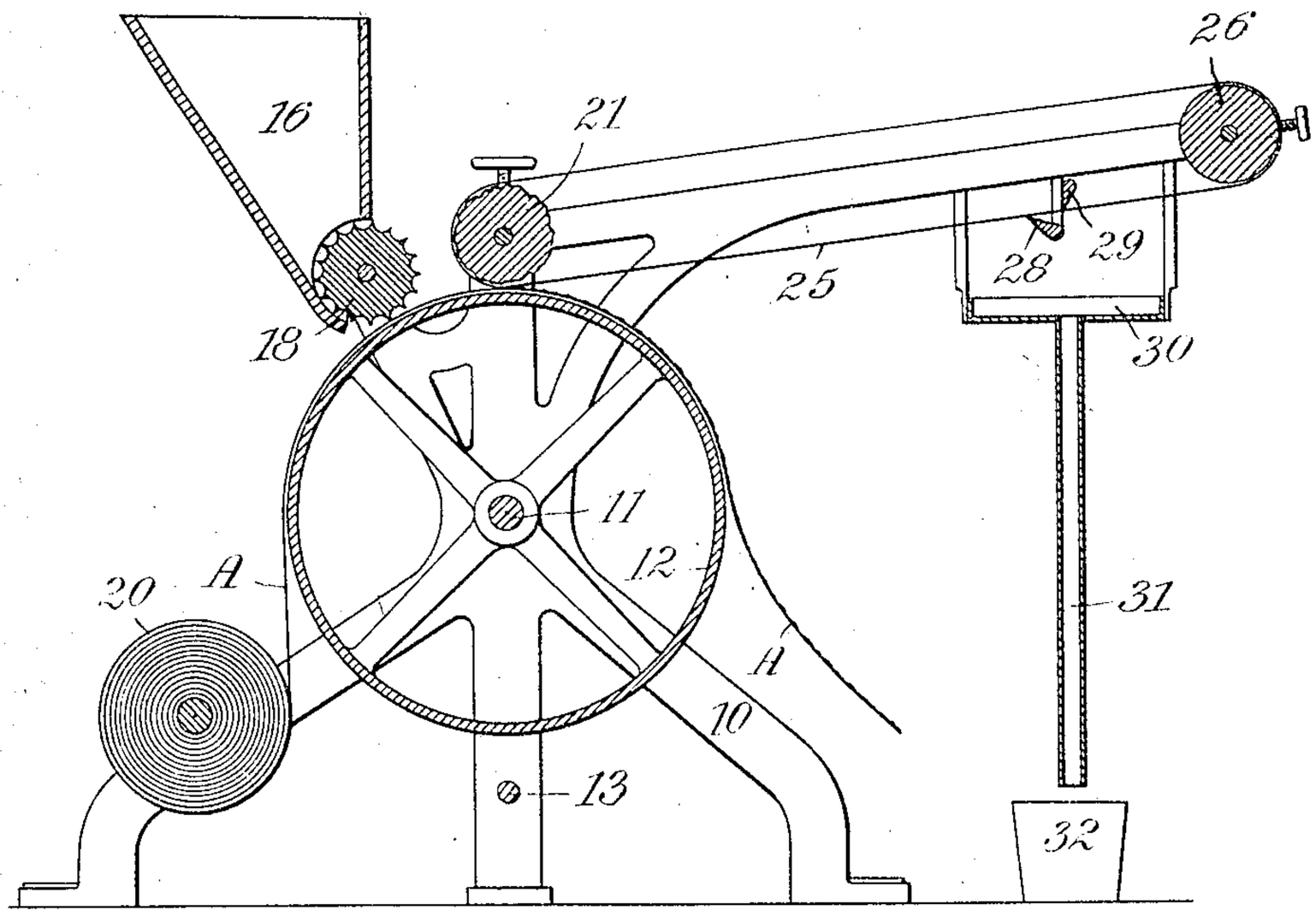


Fig. 4.

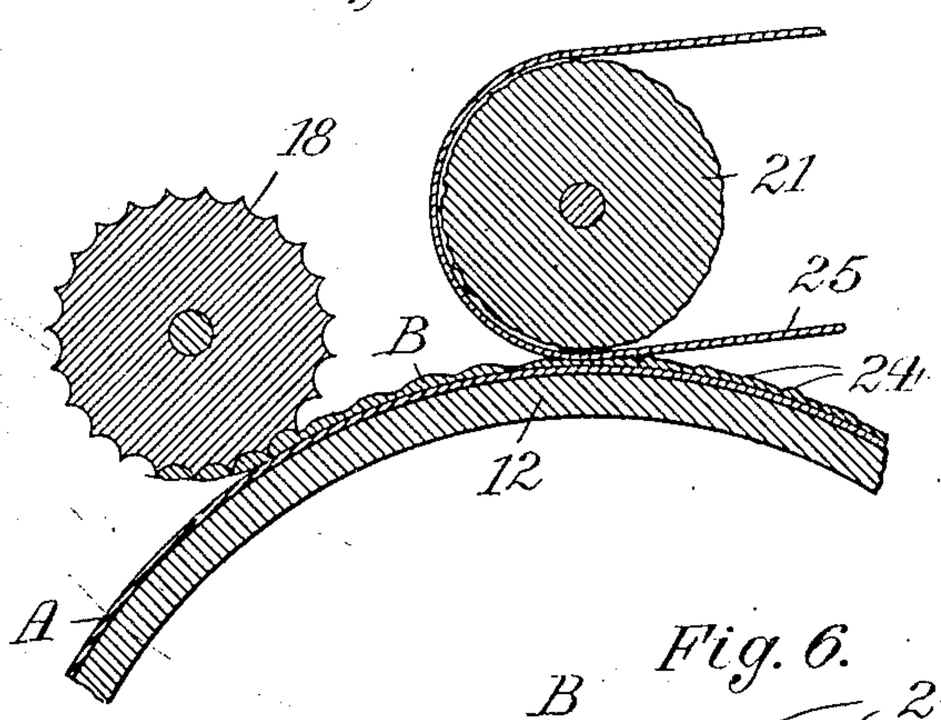


Fig. 5.

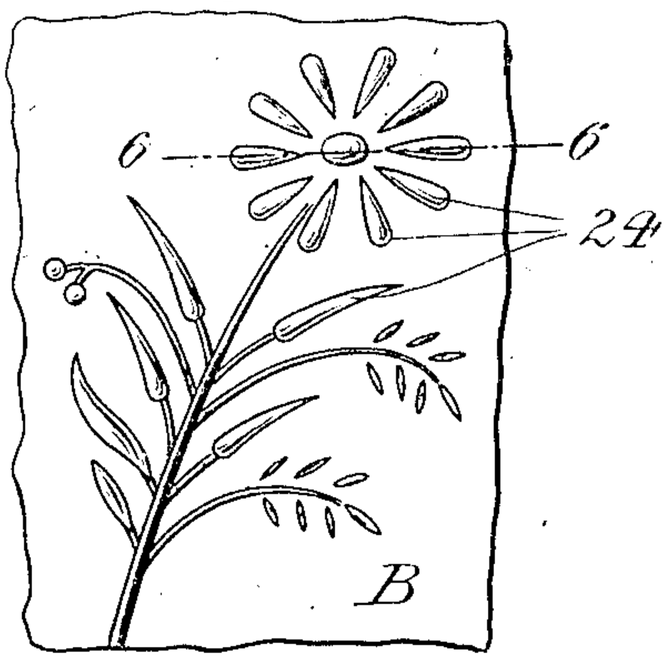
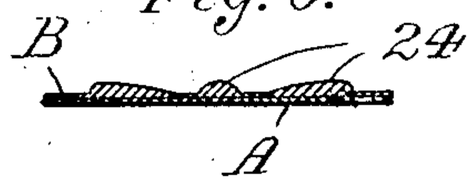


Fig. 6.



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UNITED STATES PATENT OFFICE.

RUDOLF KRAUS, OF NEW YORK, N. Y.

MACHINE FOR COATING WALL-PAPER.

No. 916,722. Specification of Letters Patent. Patented March 30, 1909.

Application filed April 22, 1908. Serial No. 428,480.

To all whom it may concern:

Be it known that I, RUDOLF KRAUS, a citizen of the United States, residing at New York city, Queens, county of Queens, State of New York, have invented new and useful Improvements in Machines for Coating Wall-Paper, of which the following is a specification.

This invention relates to a machine of novel construction for coating wall paper with a facing of pulp, and simultaneously producing an embossed pattern on said facing.

In the accompanying drawings: Figure 1 is a side elevation of my improved machine; Fig. 2 a plan thereof; Fig. 3 a vertical section on line 3—3, Fig. 2; Fig. 4 a detail of the principal rollers; Fig. 5 a face view of a piece of wall paper coated by the machine, and Fig. 6 a section on line 6—6, Fig. 5.

In a frame 10 is journaled the shaft 11 of an impression cylinder 12 adapted to be rotated from power-shaft 13 by gearing 14, 15. Above cylinder 12 there is secured to frame 10 a hopper 16, the lower discharge end of which extends across such cylinder. This hopper is adapted to contain a pulp or magma, which, when spread upon the wall paper, is adapted to form a plastic coating thereon. Below hopper 16 is journaled to frame 10, at 17, a distributing or coating roller 18 that faces cylinder 12 and receives motion from wheel 15 by wheel 19. Roller 18 is provided with longitudinal peripheral grooves which serve to convey a proper quantity of pulp upon the wall paper A, to be coated, said paper or web passing from delivery roller 20 between cylinder 12 and roller 18. Back of roller 18 there is arranged, above cylinder 12, a pattern roller 21 journaled in adjustable bearings 22. This roller also faces cylinder 12 and receives rotary motion therefrom by gear wheels 15 and 23. The surface of roller 21 is embossed or engraved to produce any suitable pattern on the coating B, of the wall paper, such for instance as the raised pattern 24 shown in Figs. 5 and 6.

In order to prevent the pulp from clogging roller 21, there is interposed between the latter and cylinder 12, the lower run of an endless cloth 25 that passes over roller 21 and also over a tension roller 26 journaled in adjustable bearings 27 of frame 10. Any pulp which may adhere to this cloth is removed therefrom by a pair of scrapers 28, 29, that engage opposite sides thereof. The moisture and pulp gathered by the scrapers drops into a pan 30 from which it flows through pipe 31 into a bucket 32.

The paper A, delivered from reel 20, first receives its coating B, of pulp by roller 18, and then, while the pulp is still soft, a pattern is embossed thereon by roller 21. The paper thus coated and ornamented is finally dried and painted or varnished. By my machine I am enabled to produce coated and embossed wall paper having a very thin facing of pulp, so that the pliability of the paper is not objectionably impaired, while, moreover, its cost of production is minimized.

I claim:

1. A machine of the character described, comprising an impression cylinder adapted to be engaged by a web, a coating roller adapted to spread a plastic layer upon the web, and a pattern roller back of the coating roller and adapted to emboss a pattern upon said layer, substantially as specified.

2. A machine of the character described, comprising an impression cylinder adapted to be engaged by a web, a hopper, a corrugated coating roller intermediate hopper and cylinder, and a pattern roller back of the coating roller, substantially as specified.

3. A machine of the character described, comprising an impression cylinder adapted to be engaged by a web, a coating roller adapted to spread a plastic layer upon the web, a pattern roller back of the coating roller, and a cloth between pattern roller and cylinder, substantially as specified.

4. A machine of the character described, comprising an impression cylinder adapted to be engaged by a web, a coating roller adapted to spread a plastic layer upon the web, a pattern roller back of the coating roller, a cloth between pattern roller and cylinder, and scrapers engaging said cloth, substantially as specified.

Signed by me at New York city, (Manhattan,) N. Y., this 20th day of April, 1908.

RUDOLF KRAUS.

Witnesses:

FRANK V BRIESEN,

ARTHUR E. ZUMPE.