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E. JAGENBERG.

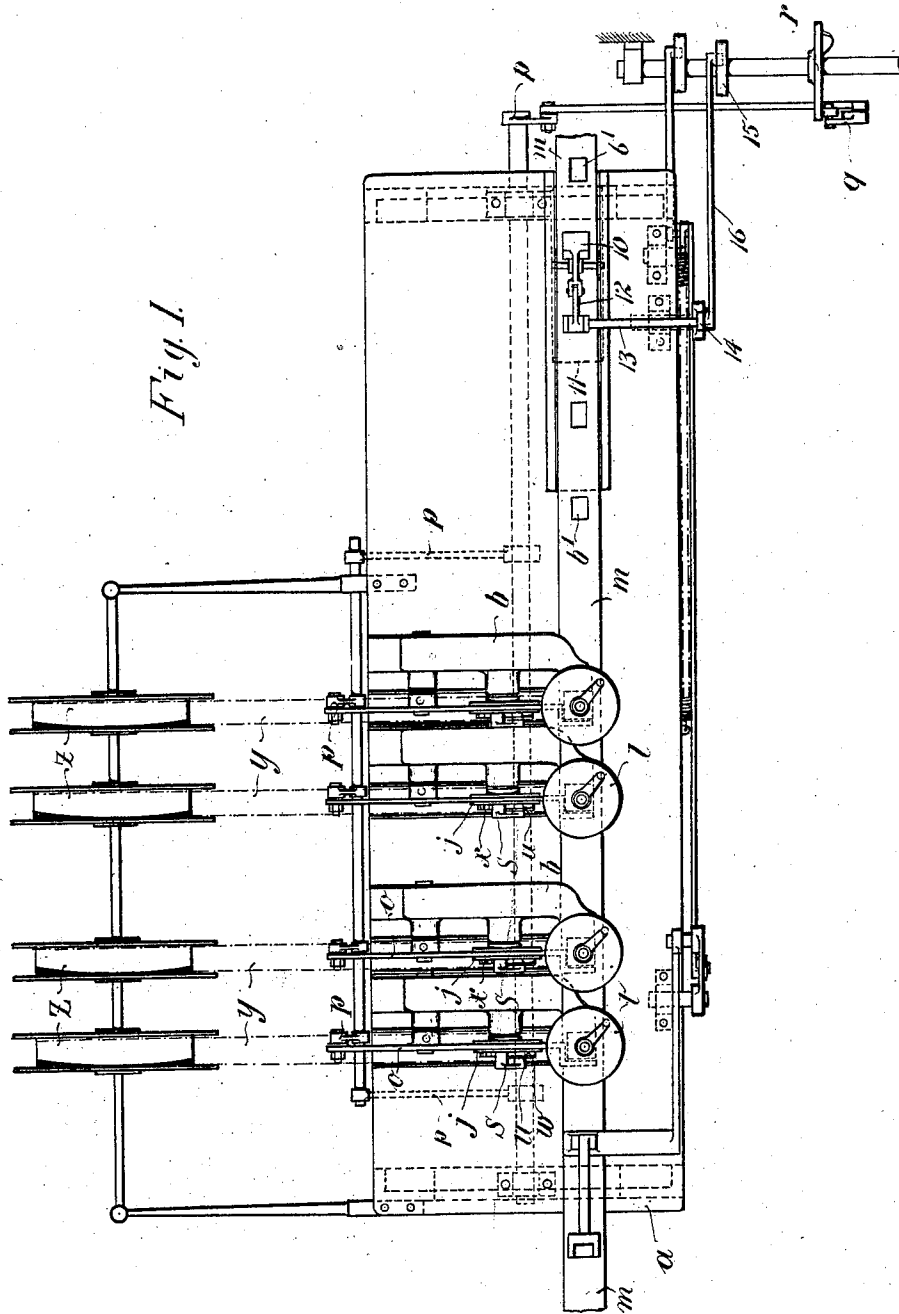
MACHINE FOR ATTACHING REINFORCING SLIPS TO BOX COVERING STRIPS.

APPLICATION FILED MAY 3, 1910.

1,000,603.

Patented Aug. 15, 1911.

2 SHEETS—SHEET 1.



Witnesses:

Katherine Koch
Daniel Holmgren

Inventor:

Emil Jagenberg
by his attorneys
Briess & Brumpe

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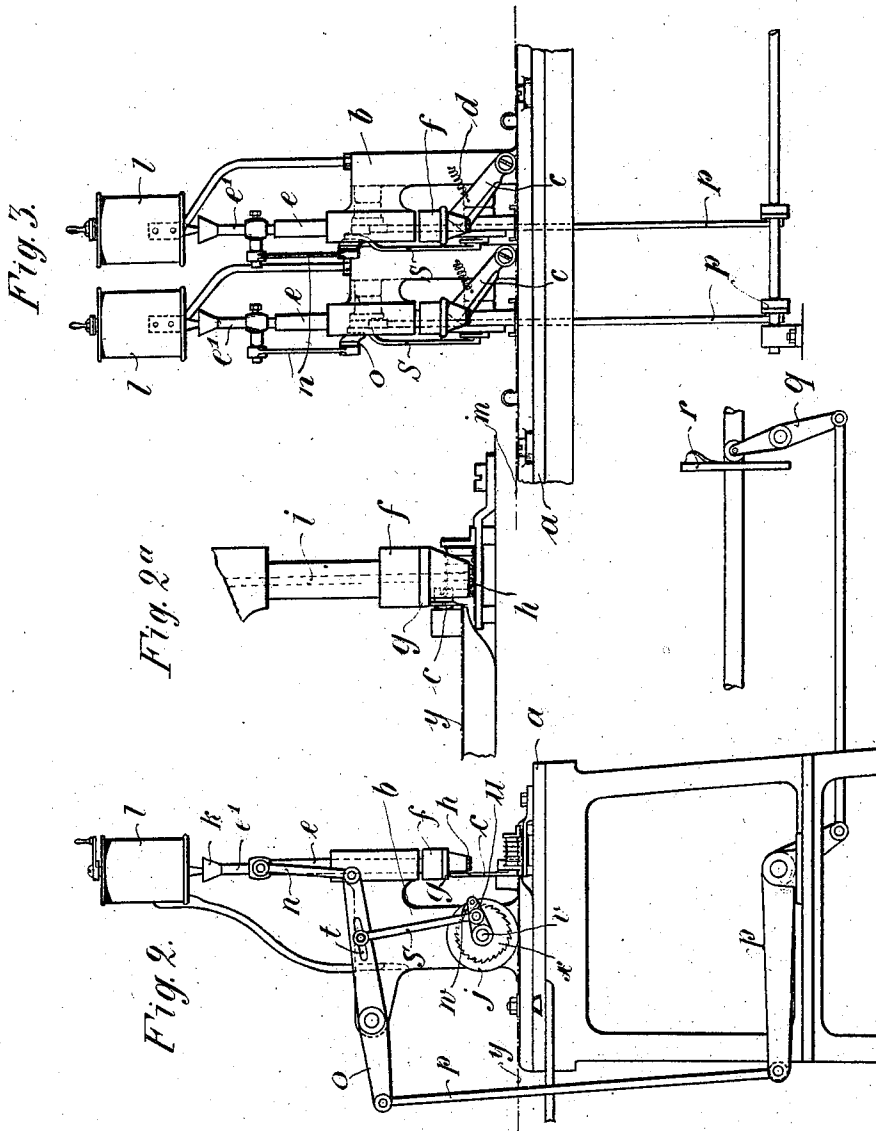
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UNITED STATES PATENT OFFICE.

EMIL JAGENBERG, OF DUSSELDORF, GERMANY.

MACHINE FOR ATTACHING REINFORCING-SLIPS TO BOX-COVERING STRIPS.

1,000,603.

Specification of Letters Patent. Patented Aug. 15, 1911.

Application filed May 3, 1910. Serial No. 559,187.

To all whom it may concern:

Be it known that I, EMIL JAGENBERG, a citizen of Germany, and a resident of Dusseldorf, Germany, have invented a new and
5 Improved Machine for Attaching Reinforcing-Slips to Box-Covering Strips, of which the following is a specification.

This invention relates to a machine of novel construction for attaching spaced
10 slips to strips adapted for covering boxes or similar articles. The slips are so positioned that they will constitute reinforcements for the corners of the box to which they are attached simultaneously with the
15 strips.

In the accompanying drawing: Figure 1 is a plan of a machine embodying my invention; Fig. 2 a side view thereof; Fig. 2^a a detail of the plunger and Fig. 3 a front
20 elevation of the main part of the machine.

The strip to be reinforced is fed over a table *a*, on which are mounted a plurality of standards *b*, the number of which corresponds to the number of reinforcing slips
25 to be secured to the paper or other strip *m*.

The strip feeding means comprise essentially a feed dog 10 pivoted to upwardly extending arms of a slide 11 which is arranged below strip *m*. Dog 10 is by link 12 and
30 shaft 13 connected to a lever 14 which receives oscillative movement from a cam disk 15 by a rod 16 all being so constructed that during the advance of the dog, the latter clamps strip *m* to the likewise advancing
35 slide, thereby taking the strip along, while upon the receding movement of the dog, the latter is raised off the strip.

To standards *b* are pivoted knives *c* normally raised by springs *d*. Each standard
40 is further provided with an angular vertically movable plunger *e* headed at its lower end as at *f*. Heads *f* are padded or felted as at *h* and have flanges *g* arranged in the path of knives *c*. Each plunger *e* and head
45 *f* has a longitudinal duct *i* communicating with a funnel *k* mounted on the plunger. Above each funnel is arranged a water tank *l*, having a lower regulable discharge nozzle that discharges the liquid through
50 plunger *e* and head *f* upon pad *h*, so that the latter is constantly moistened. To the upper cylindrical section *e'* of plunger *e* is adjustably secured a link *n* which is connected to a two arm lever *o*. This lever is
55 by rod connections *p* in turn connected to a lever *q* actuated by cam *r*. One arm of

lever *o* is slotted as at *t* for pivotal attachment of upper end of a rod *s*, the lower end of which is connected to an arm *u* turning on shaft *v* and carrying a pawl *w*. Upon
60 shaft *v* is further mounted a ratchet wheel *x* and a feed roller *j* composed of metal, rubber or other material. Strip *m* is intermittently advanced over table *a*, and is by suitable gumming means coated on its upper
65 side with an adhesive before it passes beneath standards *b*. The reinforcing slips composed of paper, linen or other material are fed over table *a*, in the form of tapes *y* at right angles to strips *m*, but somewhat
70 above the same. Tapes *y* are gummed and are wound on reels *z*, from which they are fed beneath rollers *j*, across strip *m*. When the ends of tapes *y* have arrived over strip
75 *m*, plungers *e* are lowered by cam *r*, so that flanges *g* will depress knives *c* and cause the same to sever the superposed sections *b'* of tapes *y*. The heads *f* with the moistened
80 pads *h*, will then bear upon the severed slips *b'* and press them upon the gummed surface of strip *m*, so that they are pasted to the strips and are simultaneously moistened on the upper gummed side.

During the descent of plunger *e*, rod *s* will advance pawl *w* over the teeth of
85 ratchet wheel *x*, without taking said wheel along. During the upstroke of the plunger, pawl *w* will however turn wheel *x* to revolve feed rollers *j*, and thus intermittently advance strip *y*, the length of the feed being
90 regulable by the adjustable connection between lever *o* and rod *s*.

The reinforced strips *m* are wound around a box and pasted thereto together with the slips, the adhesion of the latter to
95 the box being rendered possible by the prior moistening of the gummed sides of the slips. The standards *b* should be adjustable upon table *a*, so that the slips may be spaced to conform to various sizes of boxes. 100

I claim:

1. A device of the character described, comprising a table, means for feeding an adhesive-covered strip across the same, means for feeding a slip at right angles
105 over the strip, said slip having a dry adhesive applied to its upper side, means for pasting the lower side of the slip to the strip and for simultaneously moistening the adhesive on the upper side of the slip. 110

2. A device of the character described, comprising a table, means for feeding an

- adhesive-covered strip across the same, means for feeding a slip at right angles over the strip, said slip having a dry adhesive applied to its upper side, means for severing the projecting end of the slip, means for pasting the lower side of said end to the strip and for simultaneously moistening the adhesive on the upper side of said end.
- 10 3. In a device of the character described, a table, means for feeding a strip over the same, means for carrying a tape across the strip, a plunger adapted to be projected over the overlapping part of the tape, a pad carried by the plunger, means for moistening the pad, and a knife actuated by the plunger. 15

EMIL JAGENBERG. [L. s.]

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."