

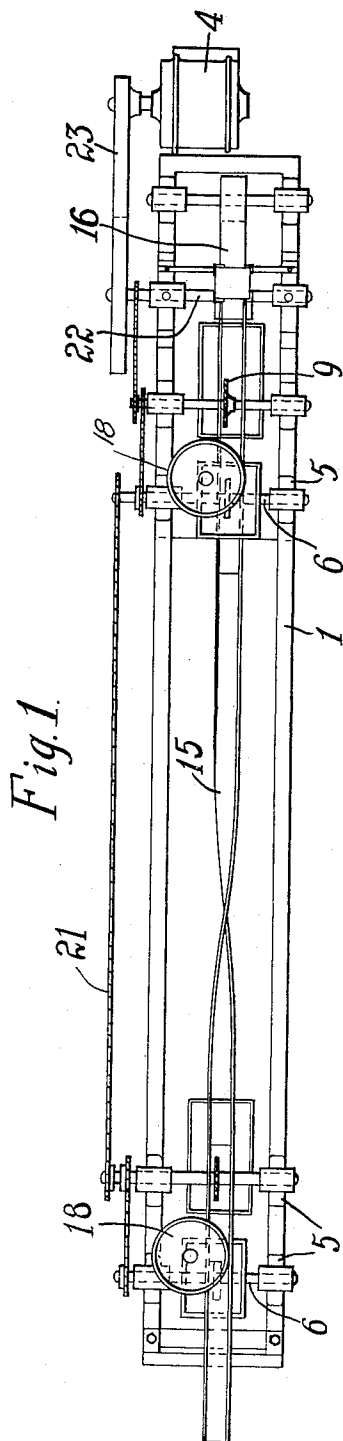
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T. A. PALMER ET AL
SANDING MACHINE

1,927,445

Filed March 25, 1929

2 Sheets-Sheet 1



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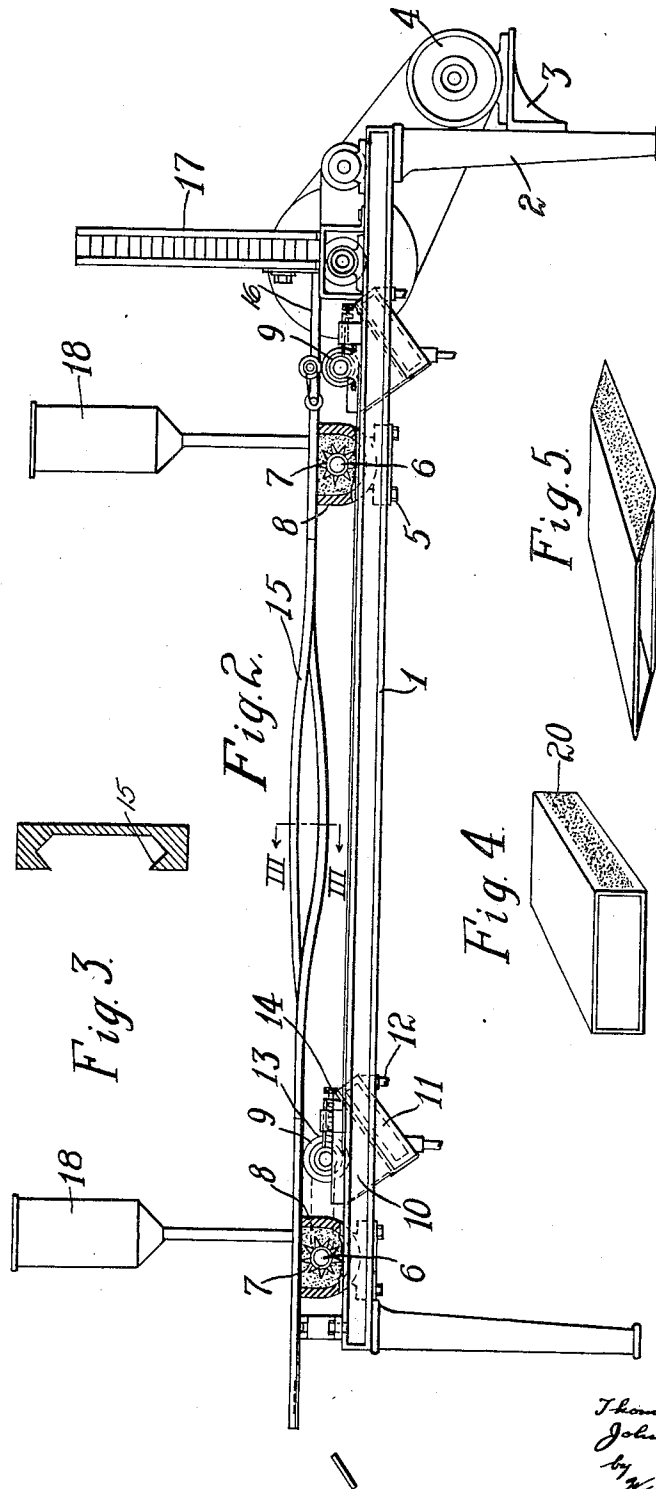
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UNITED STATES PATENT OFFICE

1,927,445

SANDING MACHINE

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2 Claims. (Cl. 91—18)

This invention relates to apparatus for sanding slides for match boxes or the like and it is among the objects thereof to provide a machine which shall be adapted to apply an adhesive and sand to one side of a slide and subsequently to the opposite side after the slide has been turned during the process of feeding it through the machine.

A further object of the invention is to provide a slide sanding machine of simple and compact mechanical construction which shall be efficient in its operation of applying sand or other ignition material to the slides in production quantities and in a minimum length of time.

These and other objects will become more apparent from a consideration of the accompanying drawings in which like reference characters designate like parts and in which Fig. 1 is a top plan view of the machine embodying the principles of this invention; Fig. 2 is a side elevational view thereof; Fig. 3 is a cross sectional view of the guide through which the slides are fed; Fig. 4 a view in perspective of a paper slide and Fig. 5 a similar view showing the slide in a substantially flattened position.

In the drawings 1 designates the machine frame proper which is supported on pedestals 2 having a bracket 3 for supporting the drive motor 4.

The side frames are provided with journal bearings 5 for journalling a shaft 6 carrying a star wheel 7 which is centrally disposed within a sand box 8. A pair of gluing rolls 9 are similarly journalled in bearing blocks in spaced relation with the sand box, the roll 9 being disposed within a glue pan 10 which is provided with a heater 11 for maintaining the glue in proper condition. The heater may be of any convenient form and in the drawings is illustrated as provided with connections 12 to a steam line. A scraper 13 having an adjustable screw 14 is mounted to engage the roll 9 for the purpose of scraping the glue to keep the roll from gumming up.

A stationary guide 15 extends longitudinally of the machine frame between the gluing and sanding elements and one end of the guide co-operates with a rubber feed belt 16, which passes under a hopper 17 in the direction of the guide 15. The slides are stacked in the hopper 17 and are fed by gravity onto the belt 16 by means of which they are conveyed into the guide 15 through which they travel to the exit end of the machine from which they are discharged.

The feed guide 15 is of the cross sectional form shown in Fig. 3 for the purpose of maintaining the paper slides shown in Figs. 4 and 5 in their

proper position relative to the gluing and sanding elements, and as shown in Fig. 2, the guide is twisted 180° to turn the slide to a position directly opposite to its position when traversing the gluing and sanding elements at the front end of the machine, this for the purpose of exposing the other side to the gluing and sanding operations at the discharge end of the machine, whereby both sides are provided with sand or other ignition material.

Hoppers 18 are provided to feed sand to the boxes 8 as it is consumed in the operation of the machine. As shown in Fig. 1, the gluing roll 9 is of such width that only a portion of the side of the slide is provided with adhesive for securing the sand, such a strip being illustrated at 20 in Fig. 4 of the drawings. All of the shafts are connected through sprocket wheels and chains 21 with a feed shaft 22 that is connected by a belt or chain 23 to the drive motor 4 whereby all of the rotating elements are simultaneously and positively actuated.

The operation of the device is briefly as follows:—The paper slides are stacked in the hopper 17 and are delivered by the rubber feed belt to the guide 15 whereby they pass over the roll 9 by means of which the adhesive is applied to one side, then over the sand box 8 where sand is taken up and held by the glued portion and by passing them through the guide 15 they are turned 180° and glued and sanded on the opposite side after which they are discharged from the machine. The slides are fed through the machine by contact with each other there being a continuous feeding of the slides from the hopper end 17 until they are discharged from the machine.

It is evident from the foregoing description of this invention that paper slides for match boxes are sanded in a simple and expedient manner while in their flattened position in which they are formed and that such apparatus provides for turning the slides to sand both sides without removing them from the machine.

Although one embodiment of the invention has been herein illustrated and described, it will be obvious to those skilled in the art that various modifications may be made in the details of construction without departing from the principles herein set forth.

I claim herein as my invention:

1. A machine for sanding slides comprising in combination a supporting frame, a stationary guide for feeding slides in substantially flattened position, a hopper for said slides, feeding means

for advancing the slide from the hopper through said guide and means for gluing and sanding opposite sides of said slides, said guide having V-shaped sides and being twisted to turn the slides in their travel from the hopper to the discharge end of the machine.

2. A machine for sanding slides comprising in combination, a stationary guide member, feed mechanism for continuously feeding slides through said member, a gluing roll disposed adjacent the respective ends of said guide, sanding

elements in cooperative alinement with said gluing rolls, a feed mechanism for continuously advancing slides through said machine, and a hopper for said slides which is adapted to place the slides in the path of the feed mechanism, said guide member being shaped to retain the slides in a collapsed position and being twisted to turn the slides while being conveyed from one end of the machine to the other.

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