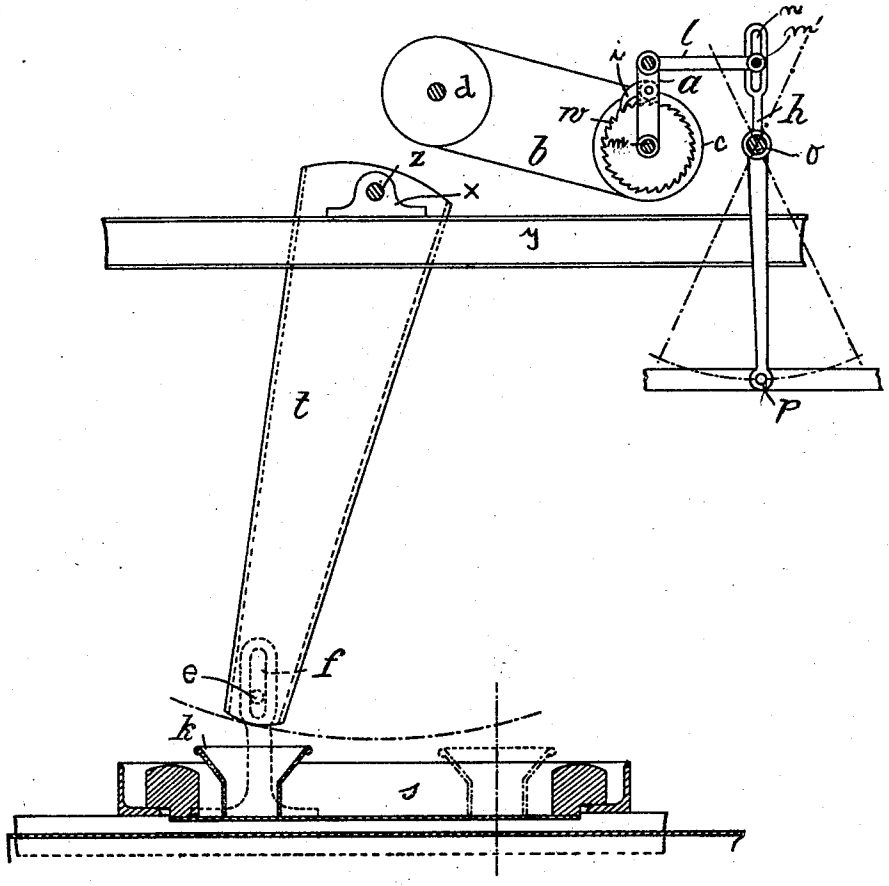
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R. HOLTKOTT & G. FRENKEL.

MACHINE FOR MANUFACTURING LINOLEUM.

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Witnesses
A. M. Kuehne
John A. Percival.

Inventors
Richard Holtkott
Gustav Frenkel
By Richard & Co.
Attorneys

ANDREW B. GRAHAM CO., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

RICHARD HOLTKOTT AND GUSTAV FRENKEL, OF BEDBURG, NEAR COLOGNE, GERMANY, ASSIGNORS TO RHEINISCHE LINOLEUMWERKE BEDBURG, A. G., OF BEDBURG, NEAR COLOGNE, GERMANY.

MACHINE FOR MANUFACTURING LINOLEUM.

No. 795,613. Specification of Letters Patent. Patented July 25, 1905.

Application filed March 11, 1905. Serial No. 249,642.

To all whom it may concern:

Be it known that we, RICHARD HOLTKOTT and GUSTAV FRENKEL, subjects of the German Emperor, residing at Bedburg, near Cologne, Germany, have invented new and useful Improvements in Machines for Manufacturing Linoleum, of which the following is a specification.

Our invention relates to the manufacture of linoleum of the class technically known as "through and through," the pattern being formed by colored granular composition being distributed in suitable disposition upon a fabric foundation; and the invention has reference more particularly to those machines employed in such manufacture which are fitted with distributing-boxes caused to travel over molds or stencils for the purpose of depositing the composition upon the continuously or intermittently traveling fabric.

In prior machinery of this class the composition has been fed to the molds or stencils by means of stationary hoppers or chutes, the exit of which is controlled by a suitable hand or automatic valve or like device, which is opened when the distributing-box arrives below the hopper-mouth. Such hoppers, however, are troublesome and unreliable in practice, and considerable waste may arise through material dripping at the valve. According to our invention we entirely overcome these defects by maintaining the exit of the hoppers permanently above the reciprocating distributing-boxes. In this manner the boxes are fed continuously, whereas formerly the filling could only proceed intermittently, owing to the hopper-mouth having to be periodically opened and closed. Means may be provided whereby the rate of charging the hoppers is regulated in such manner that they always feed the proper quantity of composition to the molds. Such means may consist of adjustable pawl-and-ratchet gear for driving the conveyer belt or apron.

One form of construction of the new apparatus is illustrated in the accompanying drawing, in which the figure shows an elevation and part section.

k is a box designed to distribute the composition to the mold *s* in well-known manner, according to the pattern, by being reciprocated by any suitable means between the full-line and dotted-line positions indicated on the drawing. The box *k* is fed by a hopper *t*, which instead of being stationary, as in prior practice, is suspended so as to swing on trunnions *z*, turning in suitable bearings *x* on the beams *y*. The bottom of the hopper is provided with a guide pin or stud *e*, engaging in a slotted upright *f*. In this manner the hopper performs an oscillatory movement, its exit end traveling with and always remaining located above the box *k*. The hopper *t* feeds the box *k* continuously, the composition being charged into it from above by means of an endless belt or apron *b*, traveling on drums *c d*. In order to provide for regulation of the feed according to the quantity required of each particular color and to the rate of distribution and the like, one of the drums *c* is provided with ratchet-teeth *v*. In these teeth there engages a pawl *i*, pivoted to a lever *a*, one end of which is carried by a shaft *m* of the drum *c*, while the other end is jointed to a link *l*, the farther end of which is provided with a pin *m'*, located in a slot *n* in the upper limb of the double-armed lever *h*, fulcrumed at *o* to a stationary part. The lower end of the lever *h* may be actuated in any suitable manner at *p*. In this way the length of stroke of the pawl-arm may be varied as desired. Instead of the precise construction of ratchet-gear shown it is obvious that any other suitable gear, whether with pawls, friction-clutches, or the like, may be employed.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a linoleum-making machine, in combination, a traveling box for distributing the composition to the mold, a support and a non-flexible hopper having its upper end pivotally connected to the support, and the other end connected with the traveling box so that said hopper will have oscillating movement.

2. In a linoleum-making machine, in combination, a traveling box for distributing the composition to the mold, a support, a non-flexible hopper, trunnions *z* connecting the upper end of said hopper to the support, a guide-pin connected to the lower end of said hopper and an upright connected with the traveling box, said upright having a slot therein in which the said guide-pin engages

whereby the said hopper will be caused to oscillate as the box moves, substantially as described.

3. In a linoleum-making machine, in combination, a traveling box for distributing the composition to the mold or stencil, a feed-hopper having a constantly-open exit located permanently above the traveling box, and means for charging the hopper, comprising an endless apron located at the top of the hopper, drums carrying the apron, and variable-stroke gear actuating the driving-drum, substantially as described.

4. In a linoleum-making machine, in combination, a traveling box for distributing the composition to the mold or stencil, a feed-hopper having a constantly-open exit located permanently above the traveling box, and means for charging the hopper, comprising an endless apron located at the top of the hopper, drums, one of which presents ratchet-teeth, carrying the apron, a feed-pawl engaging in the ratchet-teeth, and a system of levers for actuating the pawl with variable stroke, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

RICHARD HOLTKOTT.
GUSTAV FRENKEL.

Witnesses:
WILLIAM ESSENWEIN,
PETER LIEBER.