

April 3, 1928.

1,664,677

C. H. GREBE

KALAMEIN MACHINE

Filed April 18, 1927

2 Sheets-Sheet 1

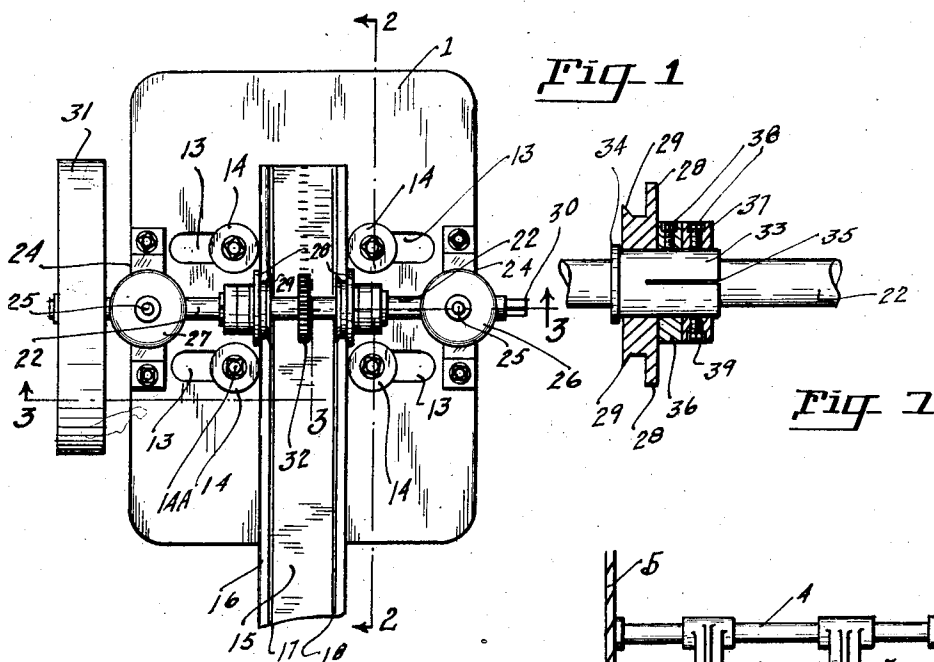


Fig. 1

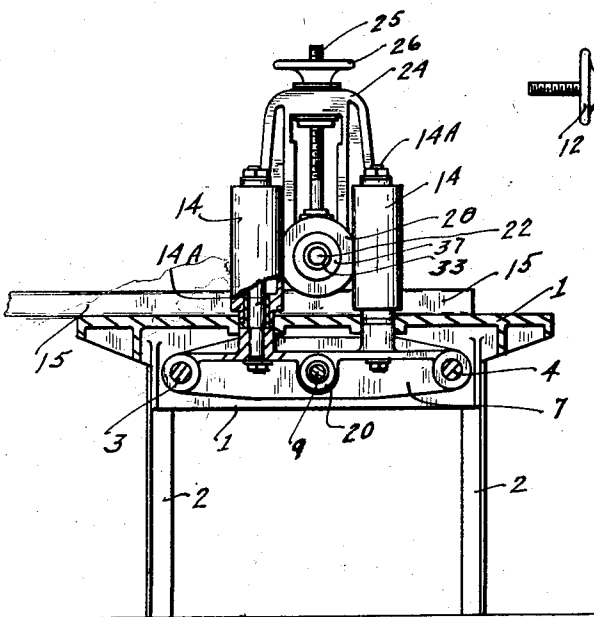


Fig. 2

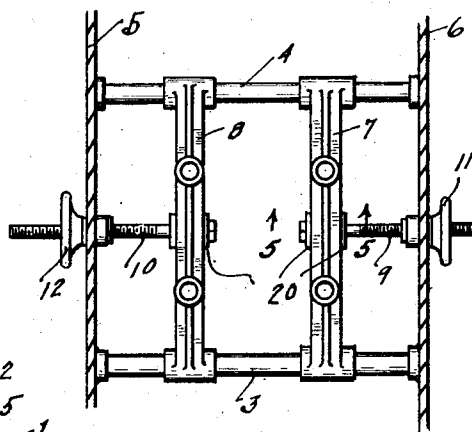


Fig. 4

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2 Sheets-Sheet 2

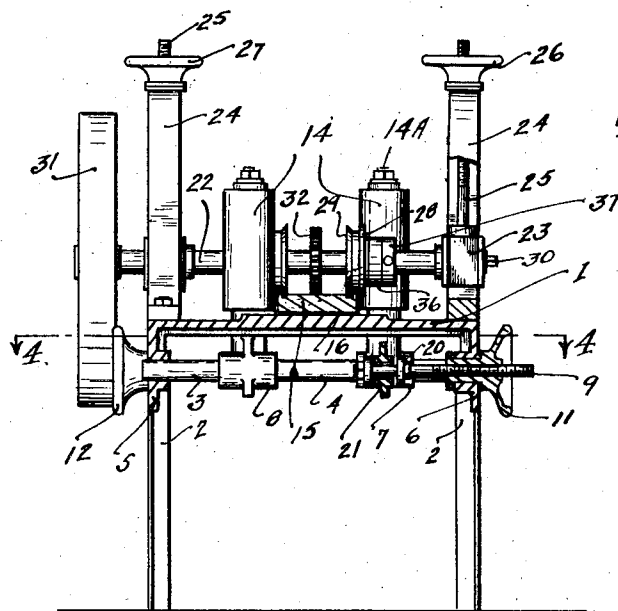


Fig. 3

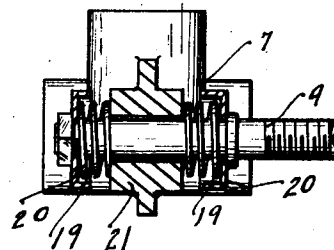


Fig. 5

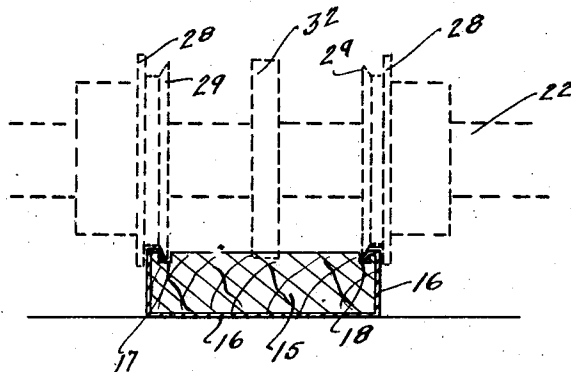


Fig. 6

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UNITED STATES PATENT OFFICE.

CONRAD H. GREBE, OF PORTLAND, OREGON, ASSIGNOR OF ONE-HALF TO LEONARD MENTRUM, OF PORTLAND, OREGON.

KALAMEIN MACHINE.

Application filed April 18, 1927. Serial No. 184,712.

My invention relates to machines for the metal covering of door and window stock and other building material products wherein the material to enter into the construction is required to be covered or partially covered with a metallic covering of sheet material. The same consists primarily of a bed plate element having a multiple of adjustable, vertical guide rollers adjustably positioned relative to the guide plates, having external means for the adjusting of the same and having a horizontally disposed vertically adjustable driving shaft having mounted thereupon the collars for kalameining the edges of the sheet material being formed about the wood members.

The primary object of my invention consists in providing a portable machine that may be utilized for the kalameining of building material that may be self-contained, light in weight, and easily moved from place to place, thus permitting of the doing of the work in the building or in the plant where located.

A further object of my invention consists in a machine of few parts, easily adjusted and one that may be manually operated.

Still further objects consist in providing a machine upon which the adaptations and adjustments of the device may be easily and quickly and economically made.

With these and incidental objects in view, the invention consists in certain novel features of construction and combination of parts, the essential elements of which are set forth in the appended claims, and a preferred form of embodiment of which is hereinafter shown with reference to the drawings which accompany and form a part of this specification.

In the drawings:—

Fig. 1 is a top plan view of the assembled device.

Fig. 2 is a sectional side elevation, taken on line 2—2 of Fig. 1, looking in the direction indicated.

Fig. 3 is an end view, partially in section, taken on line 3—3 of Fig. 1, looking in the direction indicated.

Fig. 4 is a sectional elevation in plan, taken on line 4—4 of Fig. 3, looking in the direction indicated.

Fig. 5 is a fragmentary, sectional view, taken on line 5—5 of Fig. 4, looking in the direction indicated, the same being a detail

of the adjustable compensating vertical guideway roller support.

Fig. 6 is an end, sectional view, of a wooden element shown in process of being covered with sheet material, the kalamein rollers being shown in dotted outline.

Fig. 7 is a sectional, side elevation, of a preferred form of embodiment of means for maintaining the kalameining collars or rollers in position upon the shaft.

Like reference characters refer to like parts throughout the several views.

I preferably form my device of a table element 1, supported upon structural legs 2, that are secured to the underside of the base. Longitudinal horizontal shafts 3 and 4 are connected to the side webs 5 and 6 of the base and are suitably journaled therein. Roller supporting frame elements 7 and 8 are slidably positioned upon the shafts 3 and 4 and are adapted to being positioned through the action of the threaded shafts 9 and 10 which are placed relative to the roller supports 7 and 8 and are moved laterally through the actions of hand wheels 11 and 12, secured to the outer ends of the shafts 9 and 10. Cross slots or grooves 13 are disposed laterally through the bed 1 of the device through which the supporting elements for rollers 14 pass. The rollers 14 should be made to revolve freely upon the vertical shafts 14^A and threaded means are provided at the upper ends of the shafts 14^A to permit of the removal of the vertical rollers 14 without the disassembling of the machine, as it may be found desirable to place rollers upon the shafts 14^A of various shapes to be adapted to materials of various shapes, to be covered. The object of the rollers is to contact with the side of the material being kalameined, as illustrated at 15 and the sheet of metallic covering being placed thereabout as illustrated at 16. Before the material 15 is placed within the machine, longitudinal grooves 17 and 18 are formed therein and the sheet of material 16 is formed approximately to shape with the parallel edges of the same extending inwardly and partially across the longitudinal grooves 17 and 18. The rollers 14 are then positioned to contact with the metal covering of sheet material and to press the same firmly against the material to be kalameined. To allow for differences in width and to compensate for the same and to facilitate

the ease of operation and driving of the device, the base of the elements 7 and 8 through which the adjusting shafts 9 and 10 are made to pass, as illustrated in detail in Fig. 5, are each provided with cushioning spring 19 disposed within blocks 20, one being disposed upon either side of the base element 21 so that a relatively yieldable adjustment may be made of the vertical rollers relative to the material and yet the cushion provided by the springs 19 allow for the movement of the roller and frame inwardly, or outwardly as the conditions to be met require. A cross shaft 22 is supported within adjustable blocks 23 disposed within a housing 24 and are journaled relative thereto and an adjusting shaft 25 is secured within the housing and is positioned through the action of positioning hand wheels 26 and 27 which are in threaded relationship with the shafts 25. Mounted upon this shaft 22 are a series of kalamein collars 28 having a sharpened edge 29, as illustrated in detail in Fig. 7; the object of it is to engage the parallel, longitudinal, edges of the sheet material and to depress the same within the longitudinal grooves 17 and 18 sufficiently, to prevent the spreading of the sheet material after the same has been removed from the device. The smaller sizes of the machine may be driven by hand by the application of a hand crank of suitable length to the end 30 of the shaft 22, but in the larger sizes of machines, a pulley 31 may be secured to the oppositely disposed end of the shaft to which suitable power application may be applied and to feed the material through the machine a feed roller 32 is disposed upon the shaft 22 and is made to forcibly engage within the upper surface of the material being passed through the machine. The kalameining collars 28 are journaled about the collet 33 which is adjustably positioned upon the shaft 22. An outwardly projecting rim 34 is disposed upon one end of the collet 33. The collet is split as illustrated at 35 in Fig. 7 for a part of its length and two collars 36 and 37 are positioned upon the outer periphery of the collet 33, each of which has a locking set screw 38 for maintaining the same in position and in alignment. The object of the collar 36 is to maintain the kalamein collar 28 in position upon the collet 33. The object of the collar 37, having a set screw 38 associated therewith, is to lock the collar 37 relative to the shaft and to prevent its rotation upon the collet 33. A set screw 39 is disposed upon the collar 37, to lock the collet relative to the shaft. I have illustrated in the drawings, a piece of material of parallel sides being passed through the device, but I do not wish to be

limited to the kalameining of material of this form, as my device is adapted to the kalameining of materials of various shapes and forms.

While the form of mechanism herein shown and described is admirably adapted to fulfill the objects primarily stated, it is to be understood that it is not intended to confine the invention to the one form of embodiment herein shown and described, as it is susceptible of embodiment in various forms, all coming within the scope of the claims which follow.

What I claim is:

1. In a device of the class described, the combination of a table, leg supports for the table, cross slots disposed through the table bed, adjustable guide elements having roller guideways, disposed in the slots, operating elements for adjusting the guide elements relative to the slots, a cross shaft adjustably journaled upon the table element including bearings therefor, kalamein collars disposed upon the shaft, driving elements for said shaft and a feed roller mounted upon the shaft and adapted to being driven thereby.

2. A kalameining machine, comprising a table having downwardly extending side webs running longitudinally of the table, shafts journaled within the webs, guide elements extending through slots disposed within the table and mounted upon the shafts, adjusting elements slidably disposed upon the shafts adapted to the guide elements for the purpose of positioning the guide elements, upwardly extending housings disposed at either side of the table, journal bearings disposed within the housings, a cross shaft disposed within the journals, means for the raising and lowering of the shaft, driving means for said shaft, and kalamein collars adjustably positioned upon the shaft.

3. A kalameining machine, comprising a table having downwardly extending side webs running longitudinally of the table, horizontally disposed shafts extending between said webs, adjustable guide elements extending through the table and connecting with compensating feed blocks, compensating feed blocks therefor mounted slidably upon said horizontally disposed shafts, hand adjusting elements, upwardly extending housings disposed upon the table, adjustable journal bearings disposed within the housings, adjusting elements for the bearings, a cross shaft positioned within the housing, means for operating the shaft, and kalamein and feed rollers adjustably positioned upon the shaft.

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