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Z. OSTENBERG

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COATING MECHANISM

Filed Aug. 31, 1921

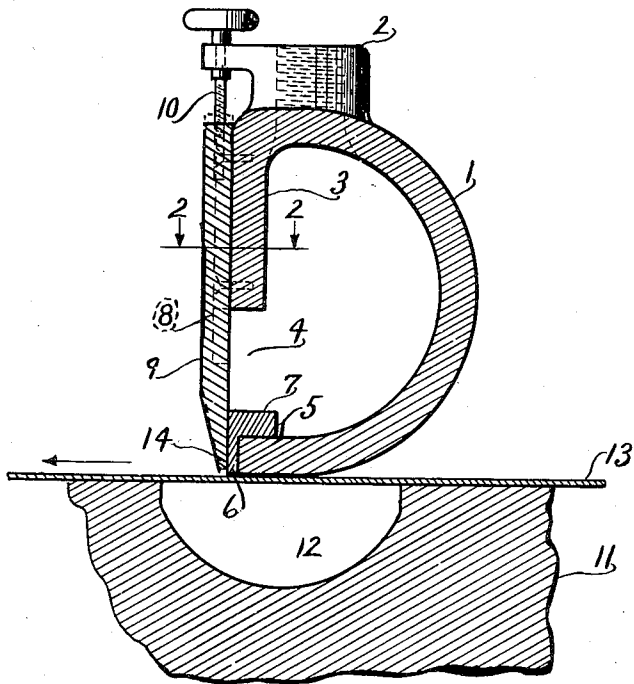


FIGURE 1

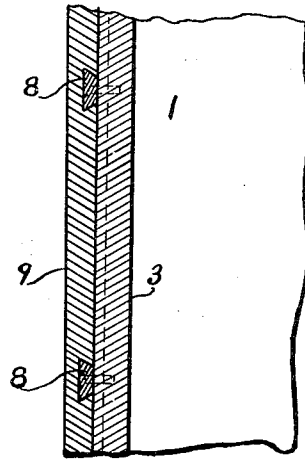


FIGURE 2

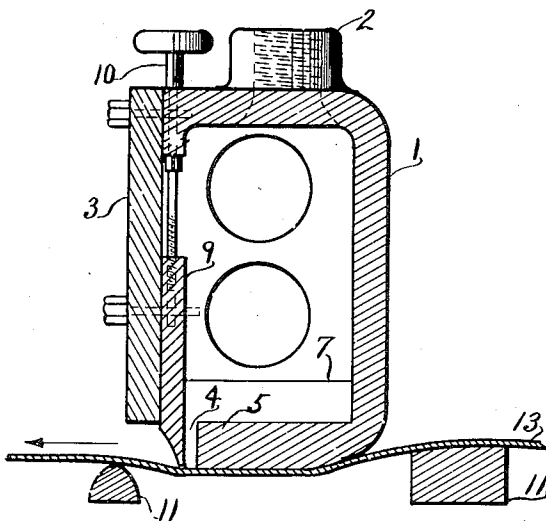


FIGURE 3

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ZENO OSTENBERG, OF SAN JOSE, CALIFORNIA, ASSIGNOR TO THE CALTEX COMPANY,
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COATING MECHANISM.

Application filed August 31, 1921. Serial No. 497,308.

To all whom it may concern:

Be it known that I, ZENO OSTENBERG, a citizen of the United States, and resident of San Jose, in the county of Santa Clara and State of California, have invented certain new and useful Improvements in Coating Mechanism, of which the following is a specification.

This invention relates particularly to the so-called knife used in applying a coating material to a moving surface as in the manufacture of artificial leather and kindred products.

It is the object of my invention to provide a knife of the character set forth in my copending application for patent, Serial No. 440,101, filed Jan. 26, 1921, in which the knife blade is adjustable relative to the body of the knife, thereby permitting the quick and accurate gauging of the coating material, and securing other objects and advantages hereinafter fully set forth.

In the drawing,—

Figure 1 is a vertical transverse section through a coating knife embodying my invention.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 shows another embodiment of my invention.

Referring more particularly to the drawings, 1 indicates the body portion of a hollow knife supplied with coating material under pressure through inlet 2. Knife 1 has one flat side 3 provided with an opening 4 between it and the lower edge 5 of said knife, the edge 5 terminating a distance short of a vertical plane in which the outer surface of side 3 lies to form a narrow slot or passage 6. The length of this slot 6 is determined by adjusting blocks as 7 slidably mounted therein.

Securely mounted on the outer surface of side 3 are vertically arranged dovetailed guides 8. At 9 is a blade provided with grooves adapted to engage guides 8 and thereby vertically adjustable on knife 1, any suitable means, as rod 10 being used to effect said adjustment. The length of guides 8 is such that the blade 9 is held in close contact with blocks 7 at all times.

The knife 1 is mounted on table 11 sub-

stantially as shown, the table having a recess 12 formed therein below said knife, and the material to be coated as 13 moving over said table and under said knife as shown.

In operation the material 13 is moved under the knife in the direction indicated by the arrow at a substantially uniform rate of speed. Since the coating material is forced through slot 6 under a given pressure a given quantity of said material is moving therethrough and being deposited on the material 13. If the blade 9 is raised a distance as indicated in dotted lines at 14 then the coating is deposited in a thick layer without materially penetrating the material 13. If the blade 9 is lowered the same quantity is deposited on material 13 but it is forced into material 13 thereby increasing its adhesion thereto. An adjustable blade of this nature obviates the necessity of adjusting the whole knife and is desirable whether or not the coating material is applied under pressure.

The form shown in Figure 3 is similar to that shown in Figures 1—2 but the blade is here shown as arranged within the knife instead of forming a side portion thereof.

It is to be understood, of course, that while I have herein shown and described particular embodiments of my invention that changes in form and construction may be made within the scope of the appended claims.

I claim:—

1. A coating knife comprising a hollow body portion having an elongated slot formed therein, movable blocks inserted in said slot for defining the length thereof, and a vertically movable blade adjustably mounted on said body portion and forming one side of said slot.

2. A coating knife comprising a hollow body portion having an inlet thereto and a flat side extending from the upper portion thereof downwardly to a point spaced a distance from the lower edge thereof, said lower edge being spaced back a distance from the plane in which said flat side lies, and a blade adjustably mounted on said flat side and supported against displacement thereby whereby to form an elongated slot in conjunction with said lower edge.

3. A coating knife comprising a hollow body portion having an inlet thereto and a flat side extending from the upper portion thereof downwardly to a point spaced a distance from the lower edge thereof, said lower edge being spaced back a distance from a plane in which said flat side lies, and a blade adjustably mounted on said flat side and supported against displacement thereby whereby to form an elongated slot in conjunction with said lower edge, and movable blocks inserted between said blade and said edge to define the length of said slot.

ZENO OSTENBERG.