Feb. 4, 1936. R. H. KINGDON 2,029,426

RUBBING DEVICE

Filed Sept. 24, 1934

Fig. 1.

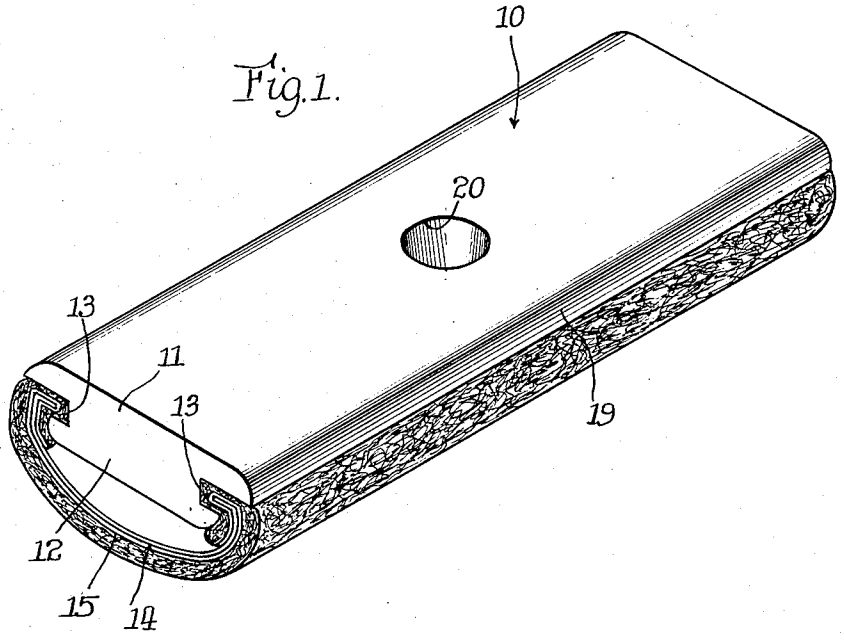
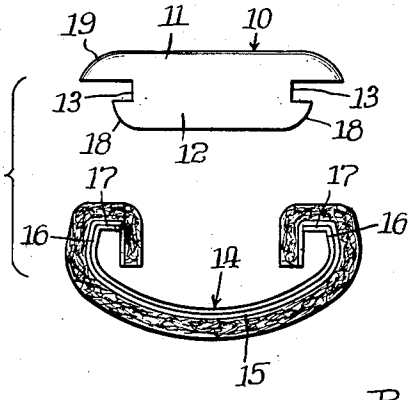


Fig. 2.



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RUBBING DEVICE

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7 Claims. (Cl. 15—231)

The invention relates generally to rubbing devices and more particularly to a holder for sheet-like rubbing material.

The general object of the invention is to provide a novel device for holding sheet-like rubbing material such as sheep skin, fabric, sand paper, or other material for rubbing or polishing a surface, the device being convenient to use and having a simple construction by which the sheet-like material is firmly held in a taut condition and may be readily replaced.

More specifically, the object is to provide a holder comprising a block provided with a resilient member which holds the sheet-like material in place and has a surface against which the sheet-like material lies, the resilient member coacting with the block in such a manner that the sheet-like material cannot accidentally loosen.

Other objects and advantages will become apparent from the following description taken in connection with the accompanying drawing, in which:

Figure 1 is a perspective view of a device embodying the features of the invention.

Fig. 2 is an end view of the parts of the device showing them separated but ready for attachment to each other.

A device embodying the features of the present invention constitutes a holder for sheet-like rubbing material such as sheep skin, sand paper, fabric, or the like. Briefly, it is constructed to provide a backing for the rubbing material, the backing being slightly resilient in character but nevertheless sufficiently firm to permit the rubbing material to be applied with considerable pressure to the surface to be rubbed. The rubbing material is held taut against the backing, and is readily removable so that a new piece of material may be placed in the holder. To these ends, the device comprises broadly a block provided with a backing which removably clamps the rubbing material in place.

As shown in the drawing, the device comprises a block 10 preferably made of wood in an elongated, substantially rectangular form. The block comprises an upper portion 11 and a lower portion 12, the latter preferably being of less width than the upper portion. In the respective side edges of the lower portion 12 are a pair of longitudinally extending parallel grooves 13.

Cooperating with the block 10 is a shoe, indicated generally at 14, providing a relatively stiff backing for a sheet of rubbing material 15, herein shown as sheep skin with the fleece left on. The shoe also coacts with the block and the rubbing material in such a manner as to clamp the latter firmly in place and hold it taut. The shoe is preferably made of sheet metal having some resilience and is bowed from side to side to extend under the block in spaced relation to the bottom face thereof.

To attach the shoe to the block, the side edges of the shoe are bent first upwardly as at 16 and then inwardly as at 17 to enter the grooves 13 in the block. The rubbing material 15 is wrapped around the inwardly turned portions 17 of the shoe and is thereby clamped within the grooves, the grooves being so dimensioned as to provide space therefor. Thus, the rubbing material is held taut against the bottom face of the shoe. To insure proper clamping of the rubbing material and to hold the shoe and block tightly together, the inwardly turned portions 17 of the shoe are spaced apart a distance somewhat less than the width of the lower portion 12 of the block. It is then necessary to spread the shoe slightly when it is pressed onto the block by a relative vertical movement, and to effect such spreading the lower corners of the lower portion 12 of the block are rounded as at 18 to provide cam surfaces for forcing the inwardly turned portions of the shoe apart. It will be noted that such attaching movement of the shoe and block also tends to draw the edges of the rubbing material inwardly and thus tighten it around the shoe.

In the preferred construction of the device, the grooves 13 are so shaped that the shoe cannot readily be removed therefrom by a movement opposite to the attaching movement. To this end, the lower surfaces are perpendicular to such direction of movement to avoid any camming action on the inwardly turned portions 17 of the shoe. However, removal of the shoe from the block may be easily accomplished merely by moving the shoe endwise of the block, the grooves being open at the ends of the block for this purpose.

Because of the bowed shape of the shoe, heavy downward pressure on the block during use would tend to flatten the bow and thereby tend to spread the inwardly turned portions 17 of the shoe apart. To compensate for this, so that the rubbing material will not become loosened thereby, the upwardly extending portions 16 of the shoe are slanted inwardly, as will be noted in Fig. 2. Thus, when the block is pressed downwardly, it bears on the portions 17 of the shoe, because of the greater width of the upper portion of the block, and the portions 16 tend to bend inwardly thereby compensating for the flattening of the bow in the shoe.

The device is constructed so that it may be conveniently grasped in the hand, and for this purpose, the upper corners of the block are rounded off, as at 19 to form substantially a continuation of the curve of the adjacent portion of the rubbing material. The device may thus be comfortably held in the hand while rubbing a surface

and exerting pressure on the device. The device may also be provided with a hole 20 in its top surface for the insertion of a handle, if it is desired to use it as a floor brush or mop.

In use, the device is convenient to handle and holds the rubbing material in a taut condition so that it may be effectively applied to the surface to be rubbed. The device is especially adapted to hold a piece of sheep skin for polishing wood surfaces or the like and for applying wax thereto, but it is equally adaptable to hold other polishing or abrasive material such as sand paper, fabric or the like. The shoe 14 holds the material firmly in place by securely clamping the edges thereof in the grooves 13 and prevents any loosening of the rubbing material by compensating for the bending of the bowed portion of the shoe.

The rubbing material, when worn out or when it is desired to use other material, may also be readily removed merely by sliding the shoe endwise of the block. To attach a new piece of rubbing material, it is placed against the bottom face of the shoe and its side edges are wrapped around the inwardly turned portions 17 of the shoe as shown in Fig. 2. The shoe and block are then forced together, the cam surfaces 18 spreading the shoe sufficiently to permit its side edges to snap into the grooves 13, such movement also tending to draw the rubbing material taut.

I claim as my invention:

1. A device of the character described comprising, in combination, an elongated block having a pair of longitudinally extending grooves in the respective side edges thereof, a shoe made of resilient material and positioned adjacent and in spaced relation to the lower face of said block and having its side edges bent upwardly and then inwardly to enter the respective grooves, and sheet-like rubbing material held against the bottom face of said shoe with its side edges wrapped around the side edges of the shoe and thereby clamped in said grooves, the lower portions of the side edges of the block being rounded to provide cam surfaces for spreading said shoe when the latter is pressed onto the block to permit the side edges thereof to enter the groove, the lower surfaces of said grooves being perpendicular to the direction of the attaching movement of the shoe to hold the shoe and rubbing material firmly in place.

2. A holder for sheet-like rubbing material comprising, in combination, a substantially rectangular block having a pair of parallel grooves in the respective side edges thereof, and a shoe made of sheet metal and extending under said block to provide a backing for the rubbing material, said shoe having a downwardly bowed form with its side edges bent upwardly and inwardly to enter said grooves, said grooves being larger than the inwardly bent edges of said shoe to permit the edges of the rubbing material to be wrapped around said edges of the shoe and thereby securely clamped within the grooves, the lower portions of the side edges of the block being rounded to spread the shoe as it is pressed onto the block, the ends of said grooves being open to permit the shoe to be withdrawn endwise of the block for removing the rubbing material.

3. A holder for sheet-like rubbing material comprising, in combination, an elongated substantially rectangular block having a pair of parallel grooves in the respective side edges thereof, and a shoe bowed to extend under the block from one side to the other with the side edges of the shoe extending inwardly to enter the respective grooves, said shoe being adapted to provide a backing for the sheet-like rubbing material, the side edges of said shoe serving to clamp the side edges of the rubbing material within the grooves, the side edges of the block below said grooves being rounded to spread said shoe as it is pressed onto the block, said grooves being shaped to resist removal of the shoe in a direction opposite to movement for pressing the shoe onto the block but being open at their ends to permit the shoe to be withdrawn endwise.

4. A device of the character described comprising, in combination, a substantially rectangular block having a lower portion of reduced width, the respective side edges of said lower portion having a pair of longitudinally extending grooves therein, a shoe extending under said block with its side edges extending inwardly to enter said grooves, and a piece of sheet-like rubbing material having its side edges wrapped around the side edges of said shoe to clamp them within the grooves and thereby hold the rubbing material taut against the lower face of said shoe, the upper portion of said block extending sidewardly beyond said lower portion sufficiently to overlie the side edges of said shoe and having its upper corners rounded to form substantially a continuation of the curve of the adjacent portion of the rubbing material.

5. A holder for sheet-like rubbing material comprising, in combination, a substantially rectangular block having a pair of longitudinally extending grooves in the respective side edges thereof, and a shoe to provide a detachable backing for the rubbing material comprising a bowed sheet of metal having its side edges turned upwardly and then inwardly to enter said grooves to clamp the edges of the rubbing material therein, the upwardly extending portions of said shoe having a slight inward slant whereby, when the block is pressed downwardly thereon in the act of rubbing, said upwardly extending portions will tend to bend inwardly to compensate for the spreading of the bowed portion of the shoe.

6. A holder for sheet-like rubbing material comprising, in combination, an elongated block having a pair of oppositely opening grooves in sides, and a shoe extending under the block with the edges of the shoe bent to extend into the respective grooves, said shoe being adapted to provide a backing for the sheet-like rubbing material and serving to clamp the rubbing material within the grooves with the rubbing material wrapped over the edges of the shoe, said grooves having their lower surfaces parallel to the lower face of the block to resist movement of the shoe perpendicularly away from the block by preventing camming of the edges of the shoe outwardly.

7. A holder for sheet-like rubbing material comprising, in combination, an elongated block having a pair of oppositely opening grooves in the sides, and a shoe made of resilient material and extending under the block with the edges of the shoe bent to extend into the respective grooves and adapted to have the rubbing material wrapped over said edges, said shoe being adapted to provide a backing for the sheet-like rubbing material and serving to clamp the rubbing material within the grooves, the edges of shoe being shaped to be forced toward each other and into the grooves under downward pressure on the block.

RALPH H. KINGDON.