

G. F. COURTOIS.
POLISHING MEANS.
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952,186.

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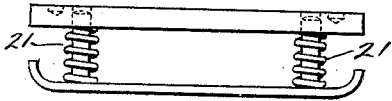


Fig. 4.

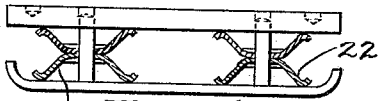


Fig. 5.

Fig. 1.

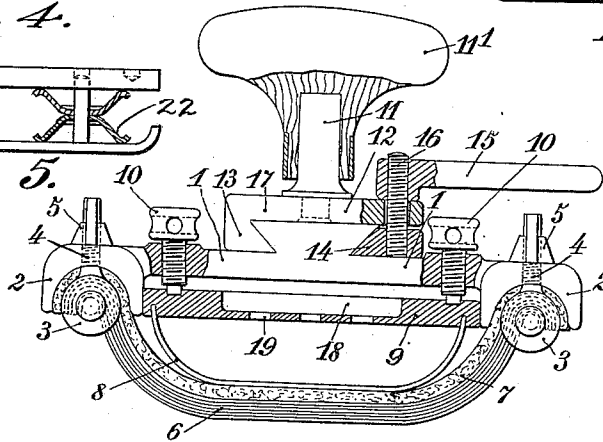


Fig. 2.

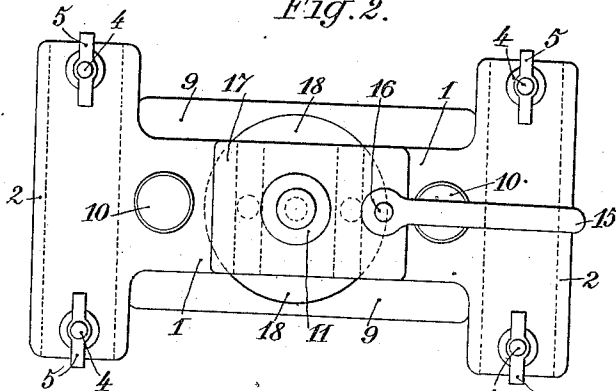


Fig. 3.

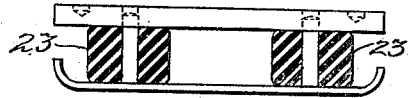
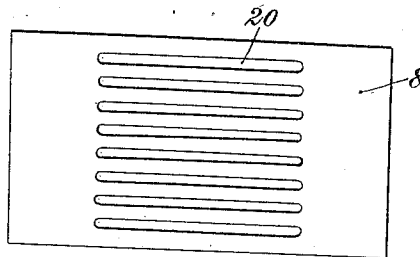


Fig. 6.

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UNITED STATES PATENT OFFICE.

GABRIEL FRANÇOIS COURTOIS, OF PARIS, FRANCE.

POLISHING MEANS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GABRIEL FRANÇOIS COURTOIS, a citizen of the French Republic, residing at 32 Rue Theophile Gautier, Paris, France, have invented certain new and useful Improvements in Polishing Means; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The operations of polishing, pumicing, varnishing and burnishing, as they are now carried out, offer great difficulties. The pads generally used for this purpose do not allow the work to be turned out regularly and with a satisfactory result, except with difficulty, and they require great experience for their proper manipulation. An important feature of this pad is that it is provided with an elastic piece, placed between its body and the substance to be worked upon, varying, of course, according to whether polishing, pumicing, varnishing or burnishing is required.

Figures 1 and 2 will better explain the invention. They show, respectively partially in vertical section and in plan, an embodiment of the invention. Fig. 3 is a plan view of the flexible plate 8, removed. Figs. 4, 5 and 6 are side elevations of blocks showing modified forms of elastic supports.

In this form of construction, the pad includes a base plate 1, the shape of which can be seen better in Fig. 2, having at each end a half socket 2 against the hollow of which can be pressed a kind of stirrup the sides of which form cheeks 3 adjustable by screwed ends 4 passing through corresponding holes of plate 1, and on each of which nut 5 acts.

The working part (or pad) is placed between the cross-bar of the stirrups 3 and the half sockets 2, and is shown formed on one hand of a number of linen sheets 6 saturated with polishing matter or glass or emery cloth or paper, and, on the other hand, of a preferably compressible, soft and permeable body, felt or cloth for instance, the whole of convenient width to be inserted between the two cheeks of the stirrups.

The whole of the pieces 6 and 7 get the stiffness required from the elastic material above mentioned which in the device shown is formed by a flexible metallic plate 8, for instance of steel, and kept stiff in a block 9, which latter slides up and down vertically

between the inner parts of half sockets 2. The adjustment of the pressure of the flexible plate 8 on the working part of the pad is obtained by the elastic yielding of said plate effected by means of screws 10 which screw into the plate 1 pressing against block 9.

The connection of the pad itself with the tang 11, which latter serves to fix it either on its handle 11' or on the corresponding support of the machine, is made by means of a dove-tailed union, the male part 12 of which belongs to base plate 1 while its female part belongs to tang 11, and comprises a fixed jaw 13 and a movable one 14 tightened up by key 15 which acts on a set bolt 16 fixed to 14, and passing freely through a hole in the horizontal portion 17 of the female part of the union. By this arrangement, a single handle 11', or a single support, once furnished with all the parts 11, 14 and 15, may receive in succession several different pads.

Further, the pad is also arranged so as to afford special facility for varnishing and burnishing. For this purpose there is provided in the block 9 a cavity in the shape of a basin 18 in which holes 19 start opening toward the bottom and, besides in the flexible plate 8 slits 20, (shown in Fig. 3). Thus, it is sufficient for varnishing or burnishing to put the product to be used for these operations into basin from which it oozes out only slowly owing to its slimy nature or to any suitable device (a porous body, or otherwise) in order to attain through holes 19 and slits 20 the spongy substance which has to act along with the said product on the surface under work. Instead of the flexible plate 8 for obtaining the elasticity desired, this result may be obtained by means of spiral springs such as 21, Fig. 4; X springs, such as 22, Fig. 5; or elastic blocks, such as 23, Fig. 6, acting against a plate which may or may not be elastic.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. In polishing means, the combination with a pad, its polishing body, and the support of the latter, of a rectangular elastic piece, placed between the said polishing body and its support, and means for regulating the action of said elastic piece, sub-

stantially, as hereinbefore described and illustrated and for the purpose set forth.

2. Polishing means comprising a pad, its polishing body, the support of the latter and
5 a rectangular metallic spring plate placed between the said polishing body and its support, substantially as described and illustrated and for the purpose set forth.

3. Polishing means comprising a pad, its
10 polishing body, the support of the latter, a rectangular metallic spring plate, placed between the said polishing body and its support and mounted on a vertically slidable block, substantially as hereinbefore de-
15 scribed and illustrated and for the purpose set forth.

4. Polishing means comprising a pad, its polishing body, the support of the latter, a rectangular metallic spring plate placed between the said polishing body and its sup- 20 port and mounted on a vertically slidable block, and means for regulating the relative position of said vertically slidable block, substantially as hereinbefore described and illustrated and for the purpose set forth. 25

In witness whereof I have hereunto set my hand in the presence of two witnesses.

GABRIEL FRANÇOIS COURTOIS.

Witnesses:

CHARLES WEISMAN,
ARMAND NAUE.