

C. PAOLI.
FINISHING WHEEL.
APPLICATION FILED JULY 12, 1920.

1,377,598.

Patented May 10, 1921.

Fig. 1.

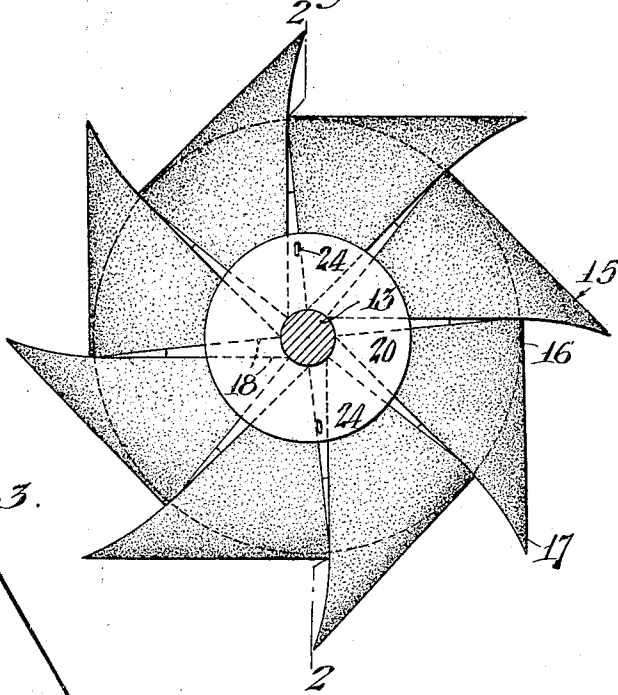


Fig. 3.

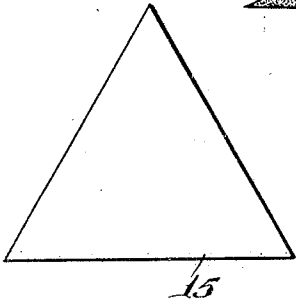
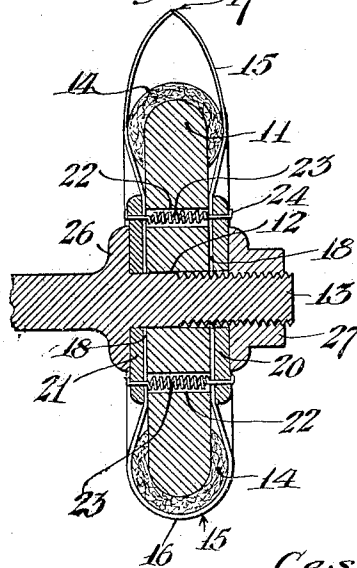


Fig. 2.



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UNITED STATES PATENT OFFICE.

CESARE PAOLI, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-HALF TO GORDON F. GILLESPIE, OF LOS ANGELES, CALIFORNIA.

FINISHING-WHEEL.

1,377,598.

Specification of Letters Patent.

Patented May 10, 1921.

Application filed July 12, 1920. Serial No. 395,513.

To all whom it may concern:

Be it known that I, CESARE PAOLI, a subject of the King of Italy, residing at Los Angeles, county of Los Angeles, and State of California, have invented a new and useful Finishing-Wheel, of which the following is a specification.

My invention relates to the art of finishing plaster of Paris objects and similar articles being more particularly a finishing wheel used for removing rough portions of the surface of such articles.

Articles made of plaster of Paris and similar substances are usually formed in molds, the result being that the surface of the article is usually rough due to the fact that the mold may not be entirely clean and also for the reason that some of the plastic material enters between the parts of the mold thereby forming a rough line of material along the parting line of the mold. These rough parts of the article must be removed to insure the production of well finished articles and it is for this purpose that I have devised the finishing wheel herein described.

The principal object of my invention is to produce a finishing wheel of the class described of simple form and construction having a plurality of resilient abrasive faces which are so constructed and mounted that they readily accommodate themselves to the irregular surfaces of the object and which are capable of being used on plaster of Paris, varnished or similar surfaces without piling of such material on the abrasive faces of the wheel.

Referring to the drawings which are for illustrative purposes only,

Figure 1 is a side elevation of a wheel embodying a form of my invention.

Fig. 2 is a vertical sectional view on line 2-2, Fig. 1, and

Fig. 3 is a diagrammatic face view of one of the leaves of abrasive material used on the wheel.

The wheel consists of a circular disk 11 preferably formed of wood or other light material having a rounded periphery and a central bore 12 through which extends the end of a spindle 13, the outer end of such spindle being threaded for the purpose hereinafter described. It is to be understood that the spindle 13 is properly mounted in any well known manner and driven at a

high rate of speed from a motor or other suitable power source (not shown) as will readily occur to any one skilled in the art.

The rounded periphery of the disk 11 is covered by a felt pad 14 which is glued or otherwise secured to the disk. The abrasive surface of the wheel consists of a series of leaves or sheets 15 of abrasive cloth, each sheet being preferably triangular in shape as shown in Fig. 3. These sheets 15 are placed on the disk by folding the base 16 over the pad made of felt or similar material, the apex or point 17 of the sheet extending tangentially from the periphery of the felt pad and the corners 18 of each sheet lying against the sides of the disk 11. The sheets are elastically held in such position during the mounting of the wheels by means of two plates 20 and 21 the corners 18 of the sheets being engaged between such plates and the disk 11. The disk 11 is provided with two openings 22 extending there-through, each opening 22 containing a coiled spring 23, the ends 24 of which extend through holes in the plates being bent over on the outside of the plates thereby placing an elastic tension on such plates. After the sheets 15 are secured to the disk, as just described, the wheel is placed upon the spindle with the plate 20 against a collar or flange 26 formed on the spindle 13. A nut 27 is threaded onto the threaded end of the spindle against the plate 21 and the plates and disk firmly clamped to the spindle between the collar 26 and the nut 27.

The sheets 15 of abrasive material are preferably formed of fabric or other flexible material and are preferably shaped in the form of an equilateral triangle as when made in such form when one corner of the sheet has become worn the sheet may be turned so that an unused corner of the same may be used for the working surface.

By using a wheel provided with sheets mounted thereon as above described, that is, with a corner of each sheet extending outwardly from the wheel, preferably tangentially, the sheet readily accommodates its form to the contour of the object being finished and the finishing action is in the form of a wiping action varying in degree of firmness from the delicate touch of the extreme ends of the sheets to firmer contact nearer the felt pad of the wheel.

The flexibility of the sheets mounted as

above described permits a continual flexing or bending of the same so that piling of material and consequent ineffectiveness of the sheets is avoided.

5 I claim as my invention:

1. A finishing wheel comprising a disk having openings therethrough, a pad secured to said disk extending over the periphery of the disk, a series of triangular
10 shaped sheets of flexible material having an abrasive surface extending around said disk, each sheet having a straight side bent over said pad with one point extending tangentially away from said pad and the inner
15 points disposed against the sides of said disk, a plate on each side of said disk against the inner points of said sheets, coiled springs in the openings in said disk having their ends extending through holes in said plates
20 and bent over on the outside thereof, and means for clamping said plates against said sheets.

2. A finishing wheel comprising a disk, a pad of yielding material secured to said
25 disk extending over the periphery thereof, a series of sheets of abrasive coated material over said pad, each sheet having an end extending tangentially away from said pad and means for clamping said sheets to said
30 disk.

3. A finishing wheel comprising a disk, a pad of yielding material secured to said disk extending over the periphery thereof, a series of sheets of abrasive coated material

over said pad, each sheet having a corner extending tangentially away from said pad, and means for clamping said sheets to said disk.

4. A finishing wheel comprising a disk, a pad of yielding material on said disk extending over the periphery thereof, a series of sheets of abrasive coated material arranged in succession about said disk, each sheet being folded over said pad and having one corner extending outwardly away from
45 said pad to form a free end, and means for securing said sheets to said disk.

5. A finishing wheel comprising a disk having a rounded periphery, a pad of yielding material on said disk extending over the
50 rounded periphery thereof, a series of sheets of flexible material on said disk, each sheet being bent over said pad and having a free end extending outwardly from said pad, and means for securing said sheets to said
55 disk.

6. A finishing wheel comprising a disk, a series of sheets of flexible abrasive material disposed successively about said disk, each of said sheets having a portion extending
60 over the periphery of the disk and a free portion extending outwardly from the disk; and means for securing said sheets to said disk.

In testimony whereof, I have hereunto set
my hand at Los Angeles, California, this 3rd
day of July, 1920.

CESARE PAOLI.