

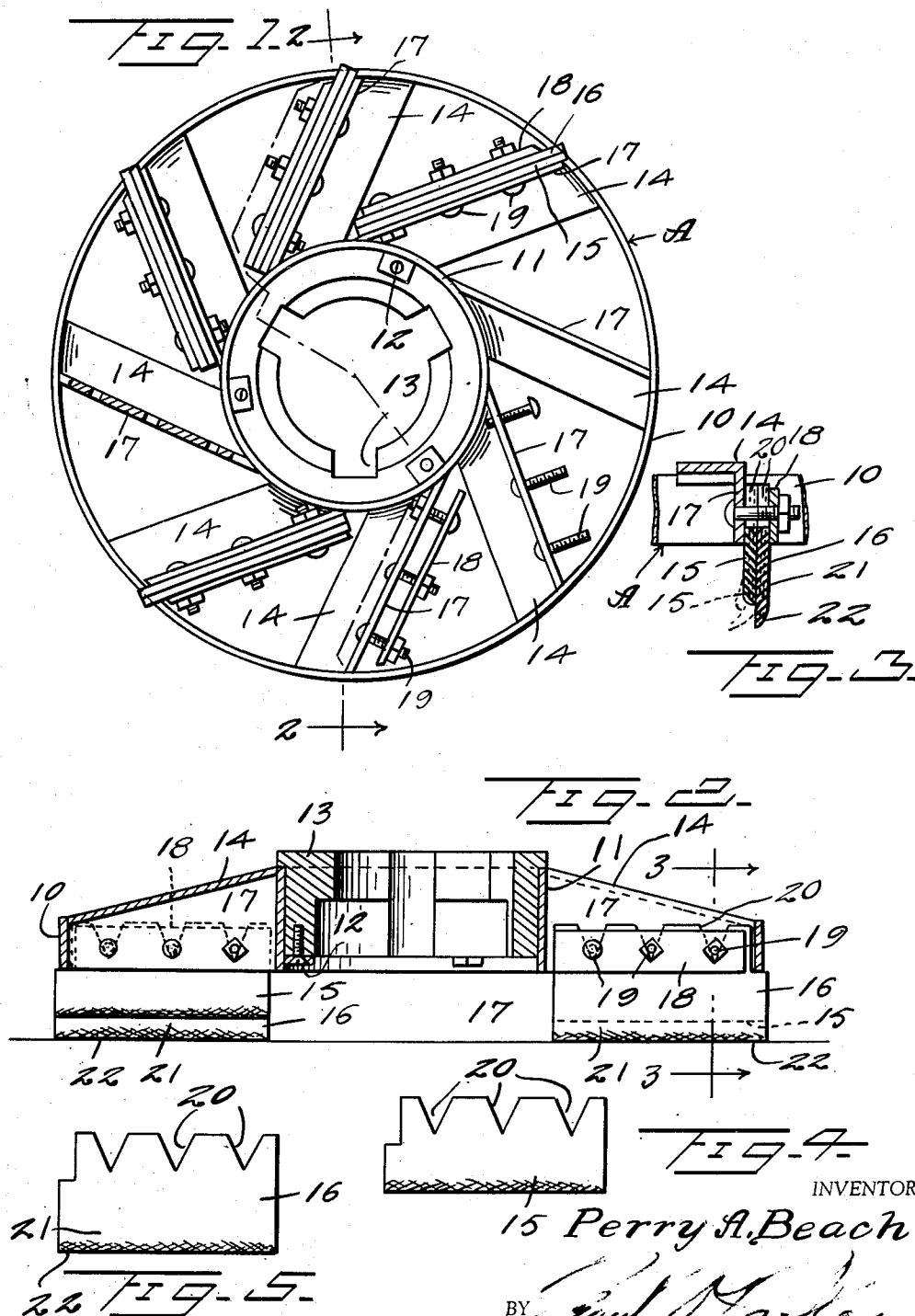
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FILLER DISK FOR BUFFING MACHINES

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FILLER DISK FOR BUFFING MACHINES

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3 Claims. (Cl. 15-230)

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The invention relates to a disk construction, and more especially to a filler disk for rotary buffers used for surfacing purposes.

The primary object of the invention is the provision of a structure of this character, wherein it affords an easy and efficient means of applying fillers to floors and large flat surfaces, filling the cracks, pits and pores of wood, leaving the floor in a highly satisfactory condition for finishing either with varnish or seal and wax.

Another object of the invention is the provision of a structure of this character, wherein it is economical to operate as it possesses a minimum number of wearing parts, these being preferably made from red rubber belting and costing but a few cents to replace and lasting in service for several thousand feet of floor, the said structure being adaptable for attachment to a floor or surfacing machine as a substitute for a polishing brush or steel wool disc, and is applicable to single or multiple disc machines of standard constructions.

A further object of the invention is the provision of a structure of this character, wherein its construction is such that it will draw substantially all excess material to the center and distribute it until it is used up in filling the cracks and pits in the surface acted upon during the operation of the machine.

A still further object of the invention is the provision of a structure of this character, wherein during operation the vanes of the disk through the weight of the machine and the rotation of said disk are forced to bend slightly giving a wiping action similar to hand rubbing, resulting in buffing the floor smooth and highly polished, ready for either varnish, seals or waxes.

A still further object of the invention is the provision of a structure of this character, which is extremely simple in construction, thoroughly reliable and efficient in operation, strong, durable, readily and easily attached and removed to and from a rotary buffing machine, the wearing parts being conveniently replaceable with new parts, light in weight, and inexpensive to manufacture and install.

With these and other objects in view the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawing, which discloses the preferred embodiment of the invention, and as pointed out in the claims hereunto appended.

In the accompanying drawing:

Figure 1 is a plan view partly in section and

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with parts disassembled of the disk constructed in accordance with the invention.

Figure 2 is a sectional view with certain elements added taken on the line 2-2 of Figure 1, looking in the direction of the arrows.

Figure 3 is a fragmentary sectional view taken approximately on the line 3-3 of Figure 2, looking in the direction of the arrows.

Figure 4 is an elevation of one of the wiper elements of the structure.

Figure 5 is an elevation of another of the wiper elements.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, A designates generally the disk structure in its entirety, constructed in accordance with the invention, comprising an annular rim 10 concentrically spaced from an innermost ring 11 used to connect a buffing disc (not shown) to a surfacing machine (also not shown) of any standard construction, the ring 11 serving as a hub to the disk structure forming the present invention. This ring 11 has a connection at 12 with a coupling element 13 for the surfacing machine, the details of such element 13 being of no importance and need not be considered a part of the present invention.

Located between the rim 10 and the ring 11 are spaced angle iron shaped spokes 14 which are disposed substantially tangentially to the said ring 11, they being rigidly attached to both the rim and ring, respectively, assuring a rigid unitary structure as must be obvious from the drawing. The structure A in use travels at all times parallel with a floor and in contact with it through the wiping means hereinafter described, the pressure beneath being the same at any point but this pressure can be varied at the will of the operator by tilting the surfacing machine with its handle (not shown).

The wiping means, each includes innermost and outermost sections or pieces 15 and 16, respectively, made from 4 ply rubber belting or other suitable material, the section or piece 15 being a stiffener member for the section or piece 16, which latter constitutes the wiping element of the wiping means, it being easily changed when worn. The sections or pieces 15 and 16 are arranged side-by-side in meeting relation to each other and are clamped to the vertical flange 17 of the angle iron spoke 14 by an attaching plate 18 and detachable nut carrying bolts 19, respectively, these bolts being passed trans-

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versely through the plate 18 and the flange 17. The uppermost edges of the sections or pieces 15 and 16 are notched at 20 for clearing the said bolts. The section or piece 16 is of greater width than the section or piece 15, so that the lowermost edge 21 of the said section or piece 16 is disposed beyond the lowermost edge of the section or piece 15, as will clearly appear in Figure 3 of the drawing, yet these lowermost edges of both sections or pieces will slightly flex during the operation of the structure A, while the section or piece 16 is knife edged at 22, as will be obvious for positive wiping action.

The structure A is attached to the buffing machine, filler is applied to a floor with a mop or large brush, the floor is buffed at once while the filler is wet, buffing is continued until holes and cracks are filled, the floor is then cleaned and allowed to dry. The squeegee action and rubbing of the elements 16 is very efficient for filling the cracks in the floor and gives the latter a smooth finish; also eliminates most of the hard work and saves a good share of the time needed to fill cracks in the floor.

The sections or pieces 15 and 16 through the weight of the buffing machine and the rotation of the structure A are forced to bend slightly giving a wiping action similar to hand rubbing. It also has a very good action for buffing the floor surface smooth and highly polished ready for either varnish, seals or waxes.

What is claimed is:

1. A structure of the kind described, comprising: an inner annular ring forming a hub for a coupling element of a rotary buffing machine, an outer annular rim concentric to and spaced from the ring, angle iron shaped spokes rigidly connected to said ring and rim therebetween with the spokes disposed substantially tangentially to said ring, clamping means, and pliable side-by-side wiping and stiffener elements detachably secured to one of the sides of each of said angle spokes by the clamping means, each of said wiping and stiffener elements and sides being in parallel planes and substantially perpendicular to the plane of said rim, said wiping element being larger than said stiffener element whereby the lowermost edge of the wiping element is disposed beyond the lowermost edge of said stiffener element but being arranged so that the lowermost edges of both elements will flex during operation to provide a positive wiping action, the sides of the angle iron shaped spokes and the wiping and stiffener elements carried thereby lying in vertical planes, each series of stiffener and wiping elements being tangential to said inner hub, whereby each wiping lower surface thereof is adapted to engage the floor to be surfaced to distribute material in the cracks and pits in the floor as said wiping element rotatably engages said floor.

2. A structure of the kind described, comprising: an inner annular ring forming a hub for a coupling element of a rotary buffing machine, an

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outer annular rim concentric to and spaced from the ring, angle iron shaped spokes rigidly connected to said ring and rim therebetween with the spokes disposed substantially tangentially to said ring, clamping means, and pliable side-by-side wiping and stiffener elements detachably secured to one of the sides of each of said angle spokes by the clamping means, each of said wiping and stiffener elements and sides being in parallel planes and substantially perpendicular to the plane of said rim, said wiping element being larger than said stiffener element whereby the lowermost edge of the wiping element is disposed beyond the lowermost edge of said stiffener element but being arranged so that the lowermost edges of both elements will flex during operation to provide a positive wiping action, said clamping means including a plate and a plurality of nut-carrying bolts extending through a spoke and plate whereby to retain said wiping and stiffener elements between said plate and spoke.

3. A structure of the kind described, comprising: an inner annular ring forming a hub for a coupling element of a rotary buffing machine, an outer annular rim concentric to and spaced from the ring, angle iron shaped spokes rigidly connected to said ring and rim therebetween with the spokes disposed substantially tangentially to said ring, clamping means, and pliable side-by-side wiping and stiffener elements detachably secured to one of the sides of each of said angle spokes by the clamping means, each of said wiping and stiffener elements and sides being in parallel planes and substantially perpendicular to the plane of said rim, said wiping element being larger than said stiffener element whereby the lowermost edge of the wiping element is disposed beyond the lowermost edge of said stiffener element but being arranged so that the lowermost edges of both elements will flex during operation to provide a positive wiping action, said clamping means including a plate and a plurality of nut-carrying bolts extending through a spoke and plate whereby to retain said wiping and stiffener elements between said plate and spoke, said wiping and stiffener elements having notches, each notch being adapted to partially surround a bolt when said wiping and stiffener elements are in place.

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