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PAINT APPLYING DEVICE OF THE ROLLER TYPE

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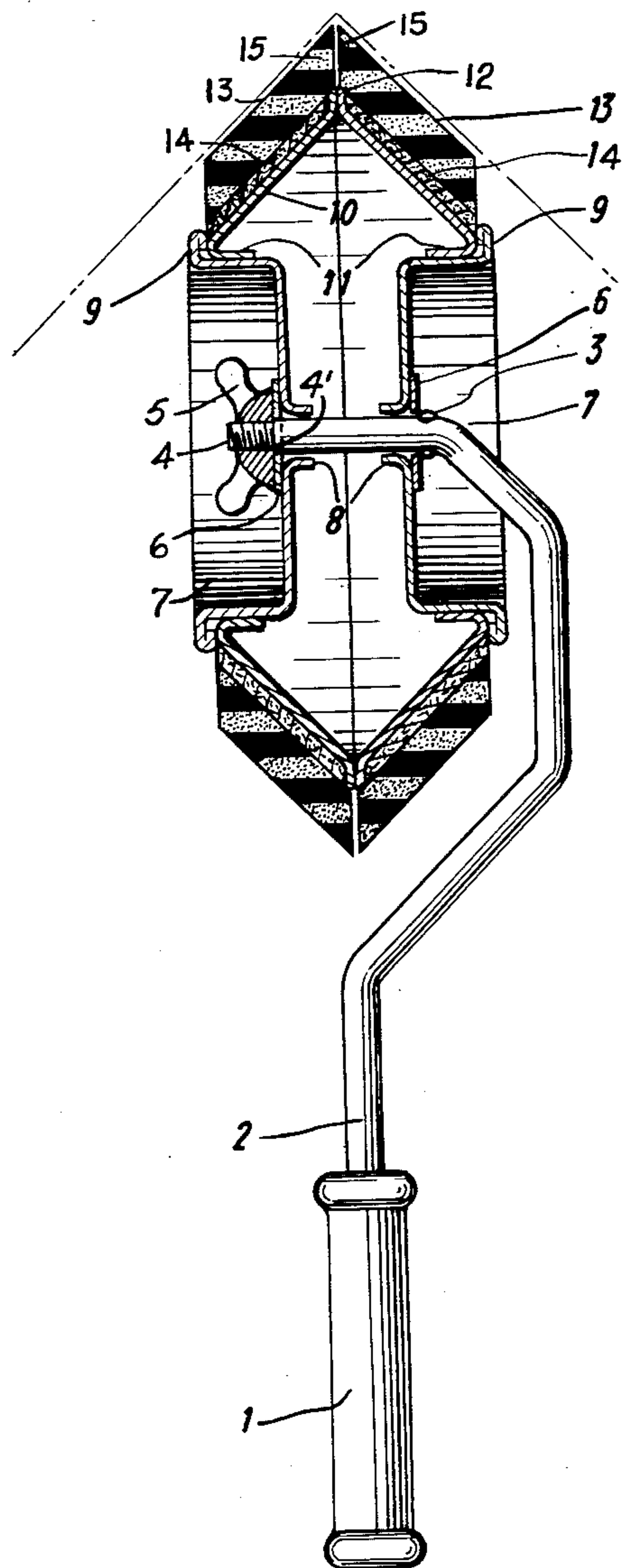


Fig. 2

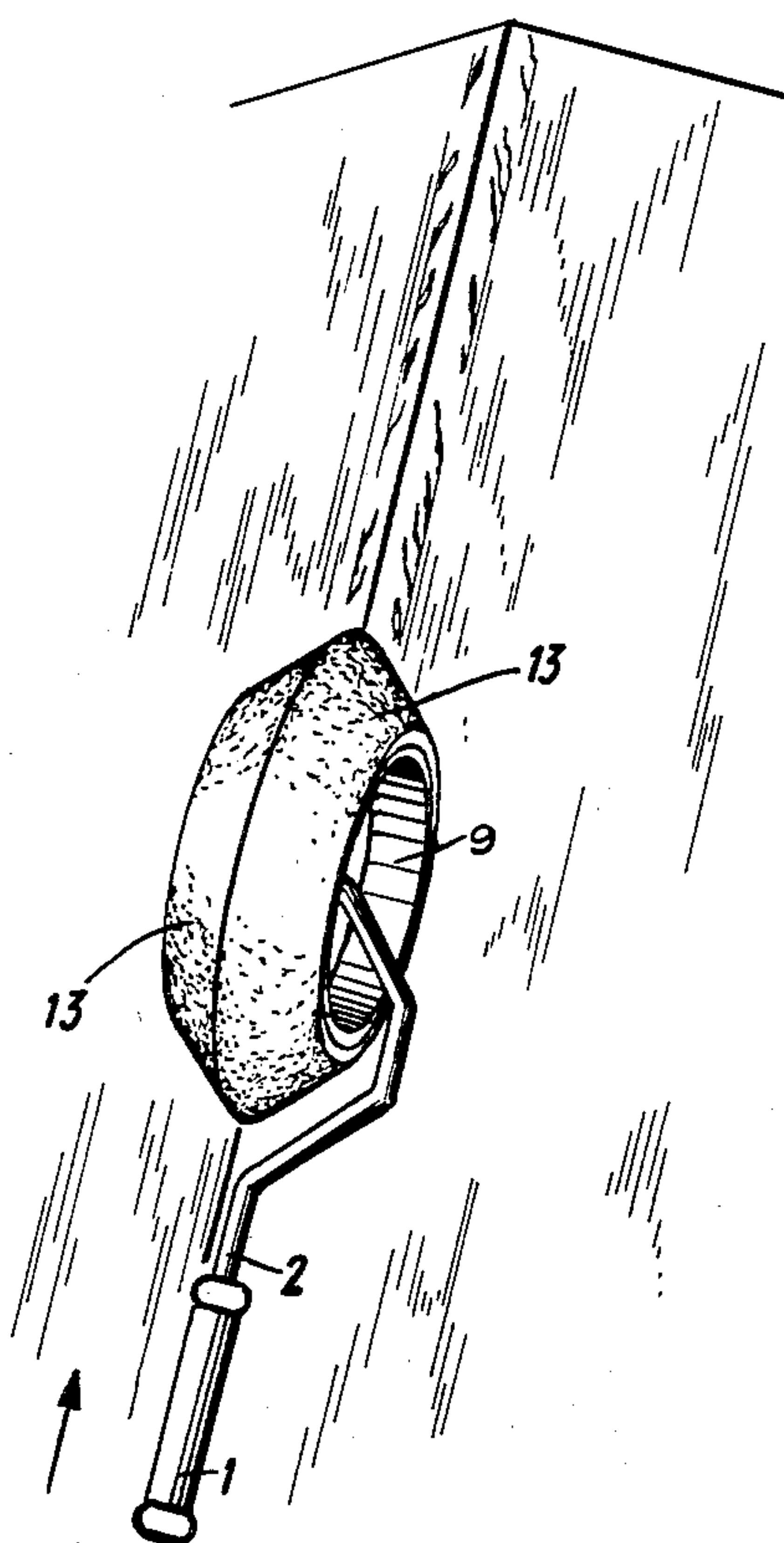


Fig. 1

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**PAINT APPLYING DEVICE OF THE  
ROLLER TYPE**

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This invention relates to a paint applying device of the roller type for applying paint in the corners at the juncture of two walls and the like, and particularly adapted to even out the excess thickness of paint left proximate to the corner by the extreme edge of the conventional paint roller used on wall or ceiling surfaces.

An object of the present invention is to suitably transfer a sufficient amount of paint in the extreme corner of the intersection of the walls and concurrently "cut in" and smooth out the excess of paint left by the edge of the conventional paint roller proximate the corner, thus leaving an even distribution of paint from the corner outward.

Another object of the invention is to provide a V-shaped roller for wall corners so that the apex of the V circular surface, being of greater diameter, controls the rotation of the roller and a wiping action is obtained progressively greater at the smaller diameters along the sides of the V roller.

A further object of the invention is to provide a V-shaped roller with a pair of renewable applicator shells mounted on a rigid core held securely in place in the roller during the painting operation.

A still further object of the invention is to provide a paint roller for use in the corners at the juncture of two walls and the like, that lends itself to simplicity of assembly and disassembly while maintaining facility and economy of manufacturing methods.

Other objects, advantages and capabilities, inherently possessed by my invention, will later more fully appear.

My invention further resides in the combination, construction and arrangement of parts illustrated in the accompanying drawing, and while I have shown therein a preferred embodiment I wish it understood that the same is susceptible of modification and change without departing from the spirit of the invention.

In the drawing,

FIG. 1 is a perspective view of the device with the roller shown applying paint to the corner intersection between two walls and the wiping action smoothing out the excess band of the paint left by the conventional roller.

FIG. 2 is a cross sectional view on a larger scale than FIG. 1, partly in elevation, and showing the detailed embodiments of the device.

In the drawings, the preferred embodiment of the invention consists of a handle 1, and a shank 2, affixed to the handle and bowed or bent laterally and having its end portion extending preferably at right angles to the longitudinal center line of the handle to provide an axle upon which the roller is rotatably mounted. The axle portion of the shank 2 is provided with a pair of swaged abutments 3, and a threaded portion 4, on its free end. A wing nut 5, is adapted to the threaded portion of the axle, to be screwed against a shoulder 4' on the axle. A pair of washers 6 are provided to ride about the axle and against the wing nut on one side and the swaged abutments of the opposite side.

A pair of retaining cups 7 is provided, each having an extruded portion 8 extending inwardly in the center of the cups to provide a journal for the cups to rotate upon the axle. The cups are each further provided with an outwardly extending circumferential flange 9.

A bi-conical bi-frustro roller member, generally designated 10, having the equal combined angles of the frustrums forming a right angled exterior surface at their common bases, is provided with extrusions 11, ex-

tending inwardly in both of the outwardly truncated portions of the cones. As will be understood in FIG. 2, the supporting body portion of the roller member 10 is formed of two similar halves preferably stamped from sheet metal, or formed of other suitable material, and placed together in reversed position with their radial extending edges fixed together by welding, or otherwise as desired, to form the outwardly extending central circumferential flange 12. The inwardly extending extrusions 11 are adapted to be snugly but releasably fitted to the pair of retaining cups 7 inside the circumferential flanges 9.

A pair of applicator shells, generally designated 13, have a conical frustro shape with a 45° cone base angle to conform to the roller member, one shell on one side, and the other shell on the opposite side thereof. The applicator shells have an inner rigid core 14, of suitable material, and an outer paint absorbent covering 15, such as sponge rubber or the like suitably glued or otherwise affixed to the rigid core. The applicator shells are shown held securely in place on the roller member by the outwardly extending flanges 9 of the retaining cups butting against the truncated end of the rigid cores of the shells. Also in the preferred form of the invention the conical base end of the rigid cores butt against the outwardly extending circumferential flange 12 of the roller member.

It is readily seen from the drawings that the device is easily assembled for use by placing an applicator shell 13 on one side of the roller member and pressing in the retaining cup 7 into the extruded adjacent opening of the roller member. The same operation is performed on the opposite side of the roller member with the other shell and cup. Then one washer 6 is placed over the axle portion of the shank which is then inserted into the journals 8 of the retaining cups and the other washer and the wing nut placed in position. In disassembly, two holes are provided in one cup, not shown in the drawings, and the opposite cup may be pushed out of the roller member with a prod or screwdriver after the wing nut 5 has been removed.

In practice, the applicator shells 13 are of the renewable type so that the absorbent covering may be renewed when it becomes worn.

When the device is in use, the applicator shells are covered with paint in the usual sloping pan provided for conventional rollers. After the conventional cylindrical paint rollers have covered the intersecting walls with paint, a ridge of paint is left at the outward extremity of the roller and this is usually a fraction of an inch from the corner. Furthermore, it is well known, that the conventional paint roller cannot get into the extreme corner of the intersecting walls due to the free end of the roller rubbing the opposite side wall from the one it is painting.

The present invention provides a flexible paint absorbent covering that readily adapts itself to the usual irregularities of the corners and transfers the paint evenly to the extreme corner and evens out the ridge left by the conventional paint roller.

At this point it should be noted that the V shape provided by this device transfers more paint at the apex of the V where it is needed, and progressively less as the sides slope away from the apex, thus leaving an even thickness of paint from the extreme corner, outwardly on either side and spreading the excess left by the conventional cylindrical roller.

What I claim is:

1. A painting roller for applying paint in the corners at the juncture of two walls, comprising, a handle, a shank fixed to the handle and having a laterally extending axle, a pair of retaining cups rotatable on said axle



and each cup having on its outer side margin a radially extending annular flange, a pair of frusto-conical plates positioned base to base to form an included angle of ninety degrees and fixed together to have a circumferentially outwardly extending flange in the middle radially extending plane of the roller, a pair of frusto-conical rigid core members respectively seated against the outer faces of the first mentioned pair of frusto-conical plates, and a pair of frusto-conical applicator shells respectively fixed to said rigid core members, said first mentioned pair of frusto-conical plates being removably retained between the two retaining cup flanges, and each of the said pair of rigid core members being removably held between one of the retaining cup flanges and the middle radially extending flange of the first mentioned pair of frusto-conical plates, whereby the applicator shells may be renewed when desired, and spaced means on the axle for holding the roller rotatably thereon and against axial movement during use.

2. A painting roller, comprising, a handle, a shank fixed to said handle and having a laterally extending axle, a pair of retaining cups journaled for rotation on said axle, each of said cups having on its outer side margin a radially extending annular flange, a roller member supporting body having a pair of similar reversely positioned frusto-conical members with their bases contiguous and forming a 90 degree angle with relation to each other and each having at their meeting edges a radially extending flange, said last mentioned flanges being secured together and extending annularly around the roller and jointly forming a circumferential middle flange, each of said similar reversely positioned frusto conical members at its inner edge having a laterally and inwardly extending extrusion, said retaining cups being snugly but releasably fitted in said extrusions with said radially extending annular flanges of the retaining cups contacting the lateral edges of said similar reversely positioned frusto-conical members and extending a short distance radially therebeyond, a pair of inner rigid core members of frusto-conical shape mounted one on the exterior face of one of said similar reversely positioned frusto conical members and one on the other thereof, said rigid core members each being held between said circumferential middle flange and one of said retaining cup flanges, and a pair of frusto-conical applicator shells fixed one to the exterior face of each of the rigid core members respectively, the exterior faces of said applicator shells in cross-

section forming an included angle of 90 degrees with relation to each other and having their radially outward edges in close proximity to each other, and extending around the middle of the circumference of the painting roller, and spaced means on the axle for holding the roller rotatably thereon and against axial movement during use.

3. A painting roller for applying paint in the corner at the puncture of two walls, comprising, a handle, a shank having a laterally extending axle, a pair of retaining cups rotatably mounted on said axle, each of said retaining cups having on its outer side margin a radially extending annular flange, a roller member supporting body having a pair of similar reversely positioned frusto-conical members with their bases contiguous and positioned at an included angle of 90 degrees and each having at their meeting edges a radially extending flange, said last mentioned flanges being fixedly connected together to form a circumferential middle flange, said pair of similar reversely positioned frusto-conical members being retained between said radially extending annular flanges of the retaining cups, a pair of inner rigid core members removably held between said circumferential middle flange and said retaining cup flanges to seat respectively against the exterior faces of said similar reversely positioned frusto-conical members, and a pair of frusto-conical applicator shells fixed one to the exterior face of each of the rigid core members respectively, whereby the applicator shells and rigid core members can be removed for renewal, and spaced means on the axle for holding the roller rotatably thereon and against axial movement during use.

4. A painting roller as claimed in claim 3, in which the central radial plane of the roller passes between the two applicator shells, the two inner rigid core members, and the two similar reversely positioned frusto-conical members of the roller member supporting body.

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