# PATENT SPECIFICATION 762,339

*Date of Application and filing Complete Specification: Nov. 23, 1954.*

*No. 33902/54.*

*Complete Specification Published: Nov. 28, 1956.*

Index at Acceptance:—Classes 19, A(1B1 : 1B2 : 11), and 61, K4D3.

## COMPLETE SPECIFICATION.

### Improvements in or relating to the Manufacture of Brooms.

I, KWEK BOCK SEONG, of Chinese Nationality, of P.O. Box No. 44, Kuala Belait, State of Brunei, Borneo, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to the manufacture and construction of brooms.

English-made brooms, as distinct from besoms which employ twigs as the sweeping portion, are commonly constructed with a wooden head having holes in which tufts of the sweeping elements are glued, a handle being secured to the broom head either by being inserted directly into a hole in the upper surface thereof or by being inserted into a metal holder positioned in the hole.

An object of this invention is to provide an improved construction of broom head which is capable of economic manufacture by mass production methods.

The present invention accordingly comprises a moulded broom head in which sweeping elements of natural material are anchored at their root ends in the head which is composed of synthetic resinous material and incorporates wood waste and/or parts of the sweeping elements as fillers.

The synthetic resinous material employed for the bonding together of the sweeping elements preferably comprises a thermosetting resin and the fillers may consist of wood chips, wood shavings, sawdust and/or shavings of the sweeping elements themselves. The resin may, for example, be a phenol formaldehyde or a urea formaldehyde resin employing a catalyst or hardener.

In carrying the invention into effect according to one form, the root ends of the sweeping elements and the filler are treated or wetted with the resinous material, an assembly of said root ends and filler after being intimately intermixed being subjected to heat and pressure in a mould which imparts the desired broom head shape.

The sweeping elements are assembled for the moulding operation to provide the desired form of broom proper, i.e. as to density and overall shape, and are chosen according as to whether a hard or soft broom is desired.

Brooms manufactured according to this invention with moulded broom heads provide many advantages. The sweeping elements comprising, for example, bristles, hairs, split cane, vegetable fibre or reeds as normally used in brooms, are firmly held in the moulded broom head which is itself strong and rigid and which in the moulding can receive any desired shape, colouring and texture, the latter depending on the nature of the fillers employed. A socket or holder for receiving one end of a broom handle may be moulded into the broom head or may be subsequently secured to the broom head. In the latter case, a metal holder may be employed and may comprise an inverted, substantially U-shaped metal body adapted to the cross-sectional shape of the broom head, stamped parts being bent upwardly from the bridge piece of the body to form a socket for the broom handle. The body part of the holder may extend longitudinally over a substantial part of the length of the moulded broom head and may be removably secured thereto by fixing devices, such as screws. When such an elongated holder body is employed it has the auxiliary advantage of reinforcing or protecting the engaged part of the moulded broom head. When a broom becomes worn out, the holder with handle attached may be removed and secured to a new, moulded broom head made according to this invention.

[*Price 3s. 0d.*]

Price 3s. 6d.

The single figure of the accompanying drawing is a perspective view illustrating one example of moulded broom according to this invention.

The drawing shows sweeping elements 1 of split cane having their root ends embedded in a moulded broom head incorporating wood waste as a filler. A sheet metal holder 3 of inverted U-shape is secured to the broom head by screws 5. The bridge part of the holder 3 has stamped-out parts 4 that are bent upwardly to receive therebetween the lower end of a broom handle shown in dot and dash lines. Holes are provided in the part 4 and in the intervening part of the holder 3 to enable the holder to be secured by screws or the like to the handle before the holder is secured to the broom head.

What I claim is:—

1. A moulded broom head in which sweeping elements of natural material are anchored at their root ends in the head which is composed of synthetic resinous material and incorporates wood waste and/or parts of the sweeping elements as fillers.

2. A broom head according to claim 1, wherein during manufacture thereof the root ends of the sweeping elements and the filler are treated or wetted with the resinous material, an assembly of said root ends and filler after being intimately intermixed being subjected to heat and pressure in a mould which imparts the desired head shape.

3. A broom head according to claim 1, wherein the moulded broom head has removably secured thereto a metal holder for a broom handle.

4. A broom head according to claim 1 or 2, wherein a holder for a broom handle is incorporated in the broom head during the moulding thereof.

5. A broom head according to claim 3, wherein the holder comprises an inverted, substantially U-shaped body attached by fixing devices to the broom head, said body having stamped-out portions that are bent upwards to form a handle-receiving socket portion.

6. A broom head according to claim 5, wherein the holder body extends over a substantial part of the length of the moulded broom head.

7. A broom head with attached broom holder constructed substantially as hereinbefore described with reference to the accompanying drawing.

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Belfast: Printed for Her Majesty's Stationery Office, by Nicholson & Bass, Ltd.—1956.
Published at The Patent Office, 25, Southampton Buildings, London, W.C.2,
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