

M. L. STANFORD AND M. MACAULAY.

HOOK RACK.

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1,380,747.

Patented June 7, 1921.

FIG. 1

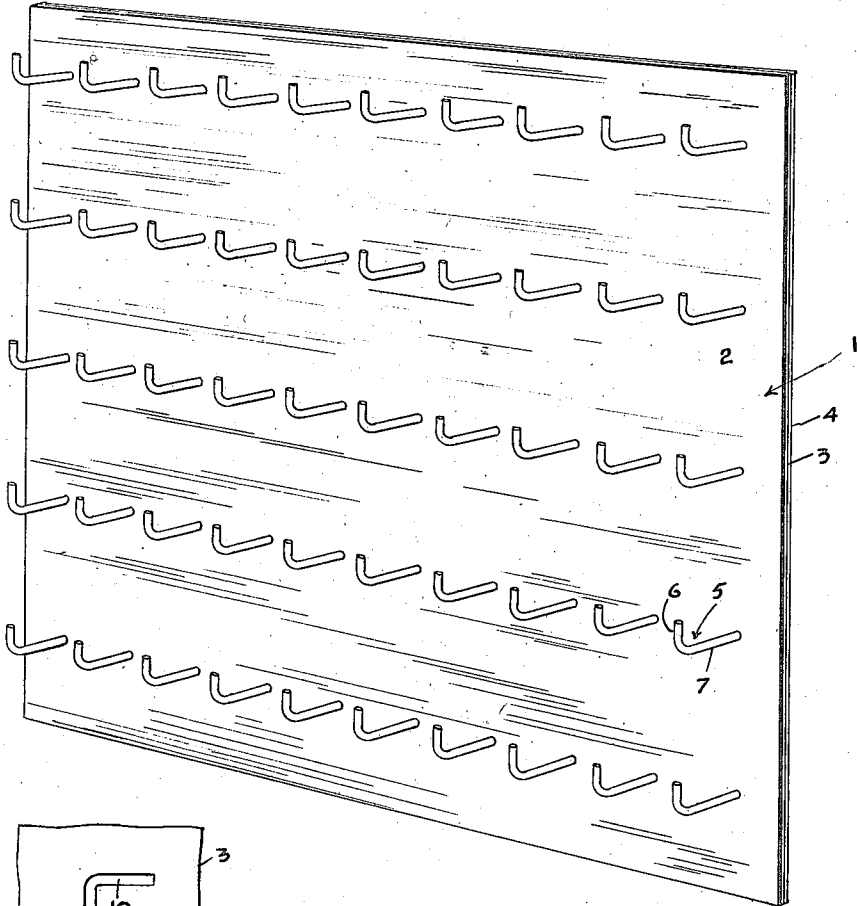


FIG. 5

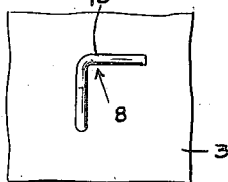
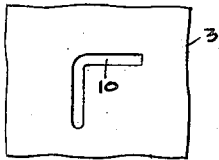


FIG. 2

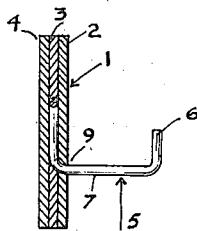


FIG. 3

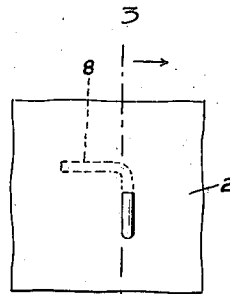


FIG. 4

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HOOK-RACK.

1,380,747.

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To all whom it may concern:

Be it known that we, MAURICE L. STANFORD and MALCOLM MACAULAY, a citizen of the United States, and a subject of the King
5 of Great Britain, respectively, residing, respectively at San Francisco, in the county of San Francisco and State of California, and Sausalito, in the county of Marin and State of California, have invented new and useful
10 Improvements in Hook-Racks, of which the following is a specification.

This invention relates to improvements in racks for supporting keys, tools, or other small implements or objects, and has special
15 reference to hook construction and the manner of anchoring the hooks in the base of a rack.

The primary object of the invention is to provide a rack of the character described
20 which may be easily constructed of light, cheap material such as cardboard or the like and yet prove durable, comparatively rigid, strong, compact, and thin, the specific construction of the hook and the manner of
25 anchoring the same in the cardboard permitting of the use of such material.

Another object of the invention is to provide in a rack of the character described, a hook which is so anchored that it will not
30 have a tendency to twist or turn on the base and will be rigid and strong.

The invention possesses other advantages and features, some of which, with the foregoing, will be set forth at length in the following description wherein we shall outline
35 in full that form of the invention which we have selected for illustration in the drawings accompanying and forming a part of the present specification. In said drawings,
40 we have shown one form of the construction of our invention, but it is to be understood that we do not limit ourselves to such form since the invention as expressed in the claims may be embodied in a plurality of
45 forms.

Referring to the drawings—

Figure 1 is a perspective view of the rack constructed in accordance with this invention.

50 Fig. 2 is a fragmentary rear elevation of a portion of the rack with the backing sheet of the base removed, and showing the anchored part of the hook in rear elevation.

Fig. 3 is a vertical sectional view taken on
55 the line 3—3 of Fig. 4.

Fig. 4 is a front elevation of a portion of the rack showing one of the hooks thereon and the anchored part thereof in dotted lines.

Fig. 5 is a fragmentary top plan view of 60 a typical portion of the anchoring or body sheet, particularly illustrating the angular openings in which the hooks are anchored.

In carrying out one practical embodiment of the invention we preferably construct a
65 flat base or body 1 of some light, inexpensive material, such as cardboard, said base or body being made-up of a plurality of sheets of said cardboard glued, or otherwise
70 fastened together. Preferably, there is provided a facing sheet 2, a body or anchoring sheet 3 and a backing sheet 4, all of the same size, with the anchoring or body sheet
75 disposed between the other sheets. By providing the three sheets of cardboard, the base or body is made comparatively light, but is rigid and strong.

A plurality of article or implement supporting hooks 5 are arranged in rows on the
80 base or body 1 in any suitable manner. The bills 6 of these hooks are preferably upturned whereas the shanks 7 are preferably horizontally disposed. At the rear ends of the shanks are angular preferably L-shaped
85 anchoring portions 8 which are integral with the hooks. The shanks 7 extend through circular openings 9 formed in the facing sheet 2 and the anchoring portions 8 engage in
90 angular preferably substantially L-shaped openings 10 which extend entirely through the anchoring or body sheet 3. The openings 9 in the facing sheet 2 are of just sufficient size to allow the shanks 7 of the hooks
95 to project therethrough. The angular openings 10 are of just sufficient size to snugly receive the anchoring portions 8. Preferably, these anchoring portions 8 extend as a whole at right angles to the shanks 7 and upwardly therefrom. However, the particular shape of the anchoring portions and
100 the arrangement thereof may be varied as desired, provided that the same are of sufficient size and so disposed that an effective anchoring of the hooks is provided for. The shape of the openings in the anchoring
105 sheet will in all instances correspond to the shape of the anchoring portions, whereby the hooks will be prevented from turning. Preferably the anchoring or body sheet 3 is of the same thickness as the diameter of the 110

material of which the anchoring portions 8 are formed. Because of this arrangement, the opposite sides of the anchoring portions 8 will lie substantially flush with the opposite sides of the anchoring sheet and will be engaged by the inner faces of the facing and backing sheets. It will thus be seen that with the hooks anchored as hereinbefore described, they will be rigidly held in place and prevented from rotation.

One way of assembling the rack is as follows:

The facing and anchoring sheets are secured together in proper alinement after having the openings 9 and 10 formed therein, the said opening being properly registered with one another. The hooks 5 are then inserted from the rear face of the body board through the openings 10 and then through the openings 9. The hooks are of such form that the bill portions 6 may be inserted through said openings so that the shank 7 will readily follow through said openings. The shanks 7 are pushed through said openings as far as possible and the anchoring portions 8 are engaged and fitted snugly in the openings 10. If desired, glue may be applied in the openings 9 and 10 so that the hooks will be securely anchored to said sheets. The backing sheet is then secured upon the rear face of the anchoring or body sheet and as this sheet is imperforate, the anchoring portions of the hooks will be entirely concealed and securely held in place. With this form of anchoring it will be seen that it is possible to make up a rack of cardboard in such a way that said rack will be stiff, strong, and durable, and the hooks will likewise be rigid and capable of supporting comparatively heavy articles.

Another way of assembling the hook rack is to insert straight strands of wire of which the hooks are to be formed through the facing or anchoring sheets after the latter have been secured together in proper relative position. After the straight strands are inserted, the anchoring portions are bent or formed with a suitable implement or tool and said anchoring portions are then moved into the openings therefor in the anchoring sheet. The backing sheet is then glued in place upon the anchoring sheet and the hooks, that is, the bills of the hooks, are then formed on the projecting portions of the strands of wire. By the use of thin layers of cardboard, we provide a back which though sufficiently stiff and strong, is comparatively thin and permits of the formation of a hook rack which in all has a thickness considerably less than the thickness of the ordinary rack. Further, with a thin hook rack we may mount the same in such places which are not suitable or accessible with the ordinary hook rack, such,

for instance, as upon the inner face of a safe door.

We claim:

1. A rack of the character described, embodying in its construction a base made up of a plurality of sheets of material secured one to the other, and a plurality of article supporting hooks having shank portions inserted through one of the sheets and angularly disposed base portions permanently anchored in the intermediate of the sheets with the other sheets engaging opposite sides of said base portions.

2. A rack of the character described, embodying in its construction an anchoring sheet, a facing sheet, a backing sheet, said sheets secured together with the anchoring sheet between the other sheets, said facing sheet having perforations therein, said anchoring sheet having openings extending entirely therethrough, and article supporting hooks having portions extending through the perforations and other portions engaged and permanently anchored in the openings in said anchoring sheet, said facing and backing sheets engaging upon opposite sides of the portions of the hooks lying in the anchoring sheet.

3. A rack of the character described, embodying in its construction a plurality of sheets of thin material of substantially the same size and thickness secured together to provide a thin, stiff base, and article supporting hooks having terminal portions bent angularly in two directions and permanently, stationarily anchored in an intermediate of the sheets and intermediate portions of said hooks extending through another of the sheets.

4. A rack embodying in its construction a base comprising a facing sheet, a backing sheet, and a body sheet interposed between and secured to said first-named sheets, hooks having angularly disposed terminal portions on their shanks, said body sheet having openings extending entirely therethrough of the same size and shape as and receiving said terminal portions, said angularly disposed terminal portions having diameters substantially equal to the thickness of the body sheet, said facing sheet having perforations through which the shanks of the hooks extend.

5. A rack embodying in its construction a base made up of a plurality of relatively thin sheets of material secured one upon the other and a plurality of article supporting hooks each of which extends through one of the outermost sheets and has an angularly disposed anchoring portion lying between the outermost sheets and permanently anchored in the intermediate sheet.

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