F. H. PERRY.

PROCESS OF MAKING CLOTHES PINS OR SIMILAR ARTICLES.

APPLICATION FILED JULY 19, 1909.

1,020,443. Patented Mar. 19, 1912.

Fig. 1.

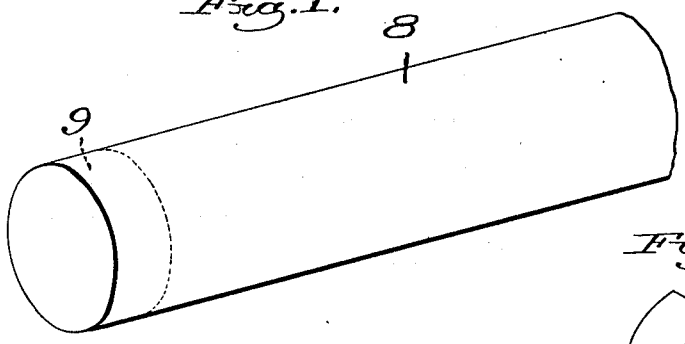


Fig. 4.

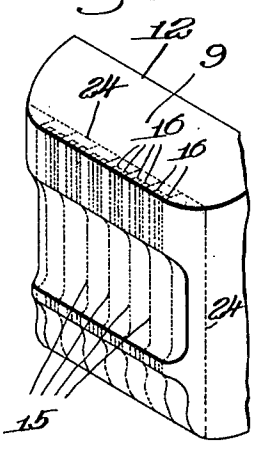


Fig. 2.

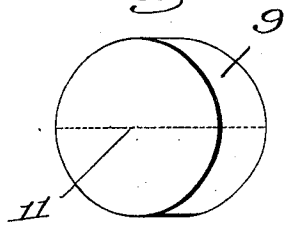


Fig. 3.

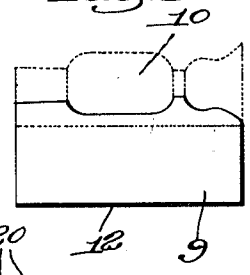


Fig. 5.

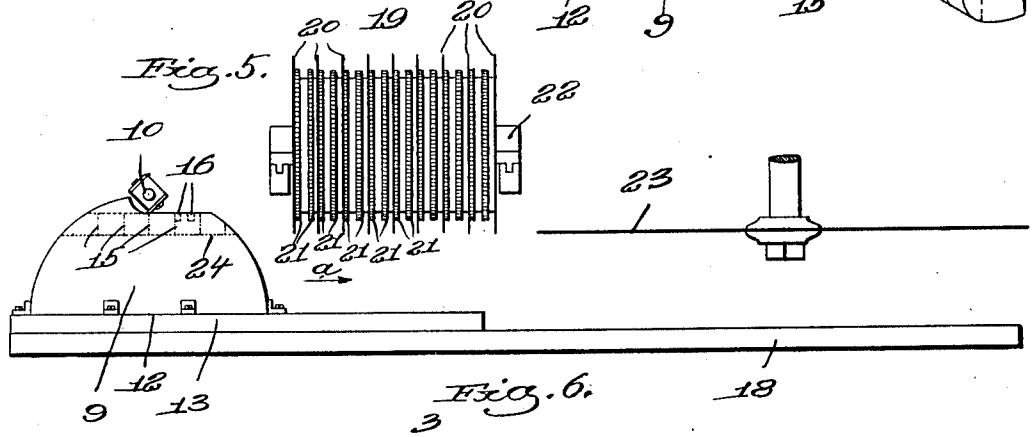


Fig. 6.

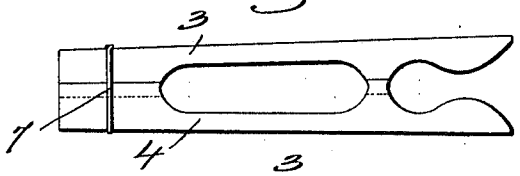
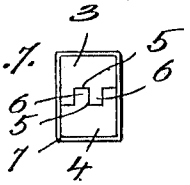


Fig. 7.



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FREDERICK H. PERRY, OF BEVERLY, MASSACHUSETTS.

PROCESS OF MAKING CLOTHES-PINS OR SIMILAR ARTICLES.

1,020,443. Specification of Letters Patent. Patented Mar. 19, 1912.

Application filed July 19, 1909. Serial No. 508,261.

To all whom it may concern:

Be it known that I, FREDERICK H. PERRY, a citizen of the United States, residing at Beverly, county of Essex, and State of Massachusetts, have invented an Improvement in Processes of Making Clothes-Pins or Similar Articles, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to a process for making clothes pins or similar articles which requires several operations in order to complete the same. The process is herein illustrated as it would be practiced in making clothes pins embodying the features shown in my Patent Number 929,703, dated August 3, 1909, but I wish it understood that the same process might be used in making other articles than clothes pins. The clothes pin shown in my said patent is one made of two symmetrical halves which are properly secured together, and in making clothes pin shown in my said patent is one made tomary to saw a log into boards of the thickness of the clothes pin, then cut the board into lengths, and thereafter cut up the lengths and otherwise treat them so as to form the completed clothes pin. This involves the handling of small pieces a good many times.

It is the object of my present invention to provide a novel process for making clothes pins by which the completed clothes pin can be made without the necessity of handling any small pieces, and I accomplish this by first cutting a log or stick of wood into lengths, each of which is substantially equal to the length of the clothes pin, and then molding one side of said length so as to give it the contour of the clothes pin, then slitting said molded face and finally cutting a slice, as it were, off from the molded face in such a way that the completed clothes pins may be cut directly from the block.

The novel features of the invention will be pointed out in the claim.

In the drawings wherein I have illustrated the invention as it would be practiced in making clothes pins, Figure 1 represents a log or stick of timber from which the clothes pins are to be made; Fig. 2 is a length cut from the log; Fig. 3 shows said length in side view with one face molded to conform to the contour of the clothes pins, said figure showing in dotted lines the shape of the molding device; Fig. 4 is an enlarged perspective view of the molded block; Fig. 5 is a view showing the various steps of the operation; Fig. 6 is a side view of a completed clothes pin; Fig. 7 is an end view thereof.

The clothes pin illustrated is made in two halves 3 and 4 which are exact duplicates of each other, and each of which is formed with the grooves 5 and ribs 6 so disposed that when the parts are placed in operative position relative to each other, the rib on one part will fit in the groove on the other. The two parts are tied together by a band or wire 7, and the purpose of the ribs and grooves is to hold the two legs from movement relative to each other. My invention might be carried out, however, in making clothes pins which have smooth abutting faces rather than the interlocking faces as shown in the drawings.

In accordance with the invention I first take a log, stick of timber, plank or other wood mass 8, from which the clothes pins are to be formed, and cut this into short lengths 9 each of which preferably will be of a length equal to the length of the clothes pin. One side of this short length is then molded so as to give it the same contour as the contour of the inner faces of the two parts 3 and 4 of the clothes pin. This step in the operation can conveniently be done by means of a molding machine having a cutter 10 of the proper contour to give the desired contour or shape to the side of the block 9. I find it convenient to split the block 9 in halves along substantially the dotted line 11 shown in Fig. 2 before the molding and other operations are performed because by this means the block while being molded will have a flat surface 12 which can be firmly supported on a carrier or holder 13. When the block 9 is molded, one side face will have a contour corresponding to the contour of the inner face of each length of the clothes pin, as clearly seen in Figs. 3 and 4. After the block is thus molded I propose to provide a plurality of slits in the molded face at right angles thereto and a distance apart equal to the width of each part of the clothes pin and a depth equal to the thickness of said parts. These slits are indicated by the dotted lines 15 in Figs. 4 and 5. At the same time that the slits are formed I preferably provide the

portions between the slits with grooves shown by dotted lines 16 and which correspond to the grooves 5 in the completed clothes pin. The next step is to cut the block along a line parallel to the molded faces and at a distance therefrom equal to the thickness of each half of the clothes pin. This cut will intersect the slits already made, and as the cut is formed parts of the clothes pin will drop from the block in a completed condition.

A simple arrangement of mechanism for carrying out my process is shown in Fig. 5 wherein the block 9 is supported on a carrier 13 which moves along a frame or support 18 in the direction of the arrow *a*. During the first part of its movement it passes adjacent a molding device 10 which molds the face of the block, as shown in Fig. 4. After the block is molded the carrier 13 may be brought to rest and the molded face may then be acted on by a gang-saw mechanism 19 which is provided with saws 20 adapted to form the kerfs or slits 15, and with other saws 21 adapted to cut the grooves 16. This gang-saw mechanism can be mounted on a carrier 22 which permits it to move longitudinally of the molded face. After the molded face has been slit and grooved as above described, the carrier 13 may advance the block 9 so as to cause a saw 23 to act thereon and to cut a slice from the molded face at such a depth that the saw kerf made by the saw 23 will intersect the slits 15. The dotted line 24 in Figs. 4 and 5 indicates approximately where the saw 23 will act on the block. While the block is being acted on by the saw 23, the individual pieces each completely formed to constitute one member of the clothes pin will drop from the block. After this series of operations has been performed, the face of the block will again be molded and slit and then another series of completed clothes pin members may be sawed therefrom by the saw 23 as will be obvious, and this operation may be repeated until the block 9 is used up.

It will be observed that in practicing my invention it is not necessary to handle small parts, as the molding, grooving, slitting, etc., are all done on the block 9 and not on the small parts which are cut from the block. It will also be obvious that the invention may be employed to manufacture other articles than the clothes pin herein shown, and the application of the invention in making a clothes pin is selected merely to illustrate the principle thereof.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:—

The process of making clothes pins, each of which is formed of two similar halves having interlocking grooves on their inner faces, which consists in first cutting a length from a log equal to the length of the clothes pin, giving one face of said length a shape in the direction of the grain of the wood similar to that of the inner face of the clothes pin member, forming separating slits in said face in the direction of the grain and with a depth to the thickness of the clothes pin member and at a distance apart equal to the width of said members and simultaneously forming the interlocking grooves and subsequently cutting said block in the plane of the bottom of the separating slits.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

FREDERICK H. PERRY.

Witnesses:
LOUIS C. SMITH,
THOMAS J. DRUMMOND.

Correction in Letters Patent No. 1,020,443.

It is hereby certified that in Letters Patent No. 1,020,443, granted March 19, 1912, upon the application of Frederick H. Perry, of Beverly, Massachusetts, for an improvement in "Processes of Making Clothes-Pins or Similar Articles," an error appears in the printed specification requiring correction as follows: Page 2, line 73, after the word "depth" insert the word *equal;* and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 16th day of April, A. D., 1912.

[SEAL.]

C. C. BILLINGS,
Acting Commissioner of Patents.