

S. G. McPHERTERS.
 AUTOMATIC MARKING OR STAMPING DEVICE.
 APPLICATION FILED APR. 10, 1920.

1,343,633.

Patented June 15, 1920.

Fig.1.

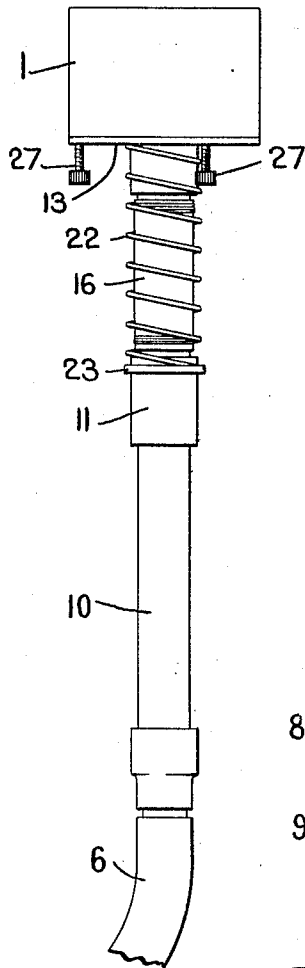


Fig.2.

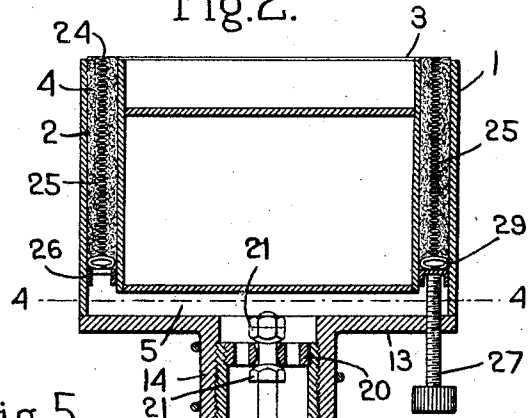


Fig.5.

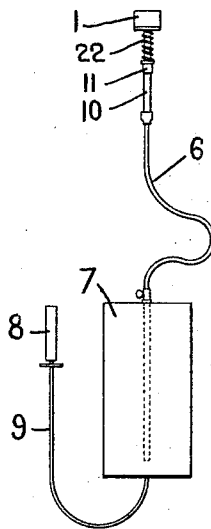
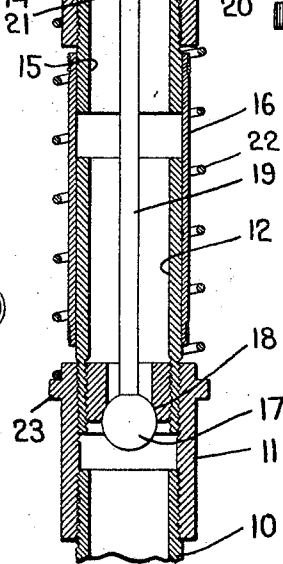


Fig.3.

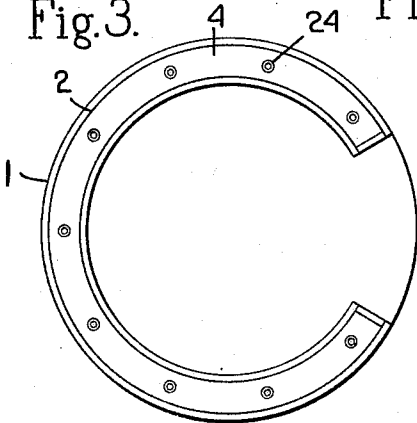
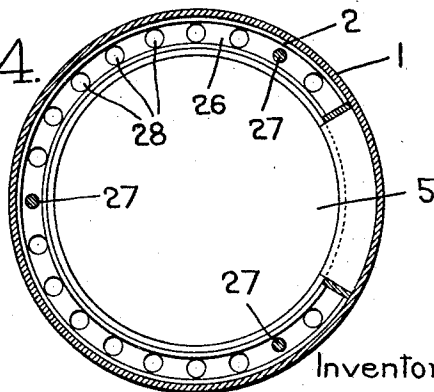


Fig.4.



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UNITED STATES PATENT OFFICE.

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AUTOMATIC MARKING OR STAMPING DEVICE.

1,343,633.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SELDEN G. MCPHETERS, a citizen of the United States, residing at Oldtown, county of Penobscot, State of Maine, have invented an Improvement in Automatic Marking or Stamping Devices, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention has for its object to provide a novel device by which a letter, figure, or other distinguishing mark can be rapidly and accurately applied to various articles.

The invention is capable of use for applying an identifying mark to a wide range of different articles. Merely as illustrating one use to which I contemplate putting the invention, I would refer to the marking or stamping of an identifying mark on the ends of sticks of pulp wood. It is more or less the common practice for people who are cutting wood to be used in making paper pulp to place some identifying mark on the end of each stick so as to be able to identify the wood which belongs to different parties. This identifying mark is frequently placed on each stick by means of a brush and some form of paint is usually used for this purpose.

My improved device is constructed so that a person can rapidly and accurately place on the end of each stick the desired identifying mark. This, however, is only one use to which the invention might be put, and I contemplate using it wherever it is desired to place an identifying mark on a plurality of articles.

A device embodying my invention comprises a head provided with a wick-receiving chamber which has a shape or contour corresponding to that of the identifying mark, a wick in said chamber which is exposed at the end of the head, a supply pipe connected to the head and communicating with the chamber, and an automatic valve controlling the flow of the marking fluid through said pipe and which is constructed so that when the head is placed against the article to be marked with a slight pressure, the valve will be opened to allow the marking fluid to enter the wick-receiving chamber. The supply pipe is preferably connected to a reservoir or tank containing fluid under pressure so that when the valve is opened the pressure in the tank will force the liquid through the

wick and thus make the desired impression on the article. When the device is removed from the article and the head is thus relieved from pressure, the valve will be automatically closed to prevent the escape of the marking fluid.

In order to give an understanding of my invention, I have illustrated in the drawings a selected embodiment thereof which will now be described, after which the novel features will be pointed out in the appended claims.

In the drawings, Figure 1 is a side view of a marking machine embodying my invention;

Fig. 2 is an enlarged central sectional view;

Fig. 3 is an end view of the marking head;

Fig. 4 is a section on the line 4—4, Fig. 2;

Fig. 5 is a view of the complete device on a reduced scale.

The head of my marking device is indicated generally at 1 and it is formed with a wick-receiving chamber 2 which is open at the face 3 of the head and in which is received a wick 4 of some suitable absorbent material. The wick-receiving chamber 2 may have any shape or configuration at the base 3, depending on the character of the identifying mark it is desired to make. In the drawings I have shown a chamber having a C-shape, in which case the identifying mark which is made by the device will be C.

The wick-receiving chamber 2 has communication with a chamber 5 formed in the back of the head 1, and this chamber in turn communicates with a supply pipe 6 that leads to a tank or reservoir 7 containing the marking or stamping fluid. The tank 7 is adapted to contain a fluid under pressure and for this purpose I provide means for pumping air into the tank so that the compressed air in the tank will subject the fluid therein to sufficient pressure to force it through the delivery pipe 6. Any suitable way of securing the desired air pressure in the tank 7 may be employed, and I have shown for this purpose a hand-operated air pump 8 connected to the tank by a pipe 9.

The supply pipe 6 is flexibly connected to the head 1 so as to permit the head to rock relative to the pipe. The main portion of the pipe 6 will preferably be in the nature of a flexible conduit so as to permit the free manipulation of the head 1, and the portion

10 of the pipe adjacent the head is rigid and constitutes a handle portion by which the implement may be operated. The flexible connection above referred to is interposed between the head 1 and the rigid portion 10 of the pipe. Any suitable flexible connection which will permit the head 1 to have its rocking movement may be employed. I have herein shown the end of the pipe section 10 as screwed into a coupling 11, and the latter as carrying a pipe extension 12. The base 13 of the head is provided with a neck 14 into which is screw-threaded a nipple or pipe extension 15. The two pipe extensions 15 and 12 are connected by means of a flexible coupling 16 which may be in the form of a rubber tube into which the pipe ends 12 and 15 are inserted. Because of the flexibility of this rubber tube, the head 1 is allowed to rock laterally relative to the handle 10. The purpose of this is to provide a construction which will permit the operative face of the head to come squarely against the surface to be marked, even though the handle 10 is not held exactly perpendicular to said surface. With this flexible connection between the head and the handle 10, a sharply-defined mark will be produced without the necessity of always holding the handle 10 exactly perpendicular to the surface to be marked.

As stated above, I have provided a valve in the supply pipe for controlling the delivery of the marking fluid therefrom. This valve is shown at 17 and it coöperates with a valve seat 18 situated within the coupling 11. The valve has a stem 19 secured thereto which extends through the flexible connection and is connected to a bridge-piece 20 associated with the base 13 of the head 1. The valve stem has a rocking or loose connection with the bridge-piece so as not to interfere with the rocking movement of the head relative to the handle 10. This may be provided for by extending the ends of the stem 19 through the bridge piece and employing rounded collars or nuts 21 on said stem either side of the bridge-piece. These nuts or collars with the rounded faces allow the stem to have a rocking movement relative to the bridge-piece which will accommodate any rocking movement of the head 1.

The valve 17 is normally held against its seat 18 by means of a spring 22 which encircles the flexible connection and bears at one end against the base 13 of the head and at the other end against a collar 23 formed on the coupling 11.

The above-described flexible connection between the head 1 and the handle 2 not only permits the head 1 to rock relative to the handle, but also permits the head to yield rearwardly relative to the handle when the operative face of the head is pressed

against the article to be marked, for when pressure is thus applied to the face of the head, the flexible pipe or tube 16 will contract or collapse slightly between the pipe sections 15 and 12, thus allowing the head 1 to move rearwardly. Such rearward movement will unseat the valve 17 and thus allow marking fluid to flow from the pipe to the head.

I will preferably use for the wick 4 some rather solid but absorbent material, such, for instance, as felt, and in order to provide for the free transmission of fluid through the wick, I propose to provide it with a plurality of apertures 24 extending entirely therethrough and to place in each aperture a wire coil 25. These wire coils constitute small ducts through which the liquid may readily flow. The wick is sustained on a follower 26 which is adjustably mounted in the wick-receiving groove 2, so that as the operative surface of the wick wears away, the follower can be adjusted to force the wick outwardly. It is desirable in use that the end of the wick should protrude slightly beyond the face of the head. The follower 26 is held in its adjusted position by means of adjusting screws 27 which screw through the base 13 and engage the follower. This follower is provided with a plurality of apertures 28 to permit free flow of the liquid therethrough, and in order to prevent these apertures from becoming clogged by the wick, I propose to interpose a reticulated or open-work spacing member 29 between the follower and wick. This spacing member may be in the form of a flattened coil of wire and this is the construction shown in Fig. 2.

The operation of the device will be apparent from the above description.

The tank 7 is preferably small enough so that it can be strapped to the operator's back and after developing the proper air pressure in the tank, the operator holds the implement by the handle 10 and applies sufficient pressure to the face 3 to unseat the valve 17. As soon as the valve is unseated, the marking fluid or liquid will flow through the valve seat 18 and fill the pipe extensions 12, 15 and the chamber 5 and also saturate the wick. When the wick is thoroughly saturated the device is ready for use for marking any article, and in doing this the operator merely presses the face 3 of the head with its projecting wick against the article to be marked and the saturated wick will leave the desired impression on the article. During the making of each impression sufficient pressure will preferably be applied to the head to unseat the valve slightly so that the liquid in the chamber 5 will be momentarily subjected to the pressure in the tank 7 and thus the liquid will be intermittently forced through the wick 1.

so that the latter will always contain sufficient marking fluid to make a distinct, clear-cut impression.

5 The flexible connection between the head and the handle 10 permits the face 3 to lie squarely against the article even though the operator does not hold the handle 10 exactly perpendicular to the face of the article being marked.

10 I claim:

1. In a device of the class described, the combination with a head having a wick-receiving chamber of the shape of the mark to be made, of a wick member in said chamber, a supply pipe flexibly connected to said head and communicating with said chamber, and a valve in said supply pipe which is opened by pressure of the head against the article to be marked.

20 2. In a device of the class described, the combination with a head having a wick-receiving chamber of the shape of the mark to be made, of a wick member in said chamber, a supply pipe flexibly connected to said head and communicating with said chamber, and an automatically-closing valve in said supply pipe which is opened by pressure of the head against the article to be marked.

30 3. In a device of the class described, the combination with a head having a wick-receiving chamber, of a wick member in said chamber, a supply pipe flexibly connected to said head and communicating with said chamber, a receptacle containing marking fluid under pressure to which said supply

pipe is connected, and a valve controlling the flow of fluid from said receptacle to said chamber.

4. In a device of the class described, the combination with a head having a wick-receiving chamber, of a wick member in said chamber, a supply pipe flexibly connected to said head and communicating with said chamber, a receptacle containing marking fluid under pressure to which said supply pipe is connected, a valve controlling the flow of fluid from said receptacle to said chamber, and means for opening said valve by pressure applied to the head.

5. In a device of the class described, the combination with a head having a wick-receiving chamber, of a felt wick situated within said chamber, said wick having a plurality of ducts therethrough, a follower in said chamber on which the wick rests, means for adjusting the follower, and a supply pipe flexibly connected to the head and communicating with said chamber.

6. In a device of the class described, the combination with a head having a wick-receiving chamber, of a felt wick situated within said chamber, said wick having a plurality of ducts therethrough, a follower in said chamber and an open-work spacing element interposed between the follower and wick, and a supply pipe flexibly connected to the head and communicating with said chamber.

In testimony whereof, I have signed my name to this specification.

SELDEN G. McPHETERS.