

Sept. 29, 1942.

J. GARVEY ET AL

2,296,842

METHOD OF AND APPARATUS FOR INSERTING INDICIA IN SOAP

Filed Sept. 12, 1940

3 Sheets-Sheet 1

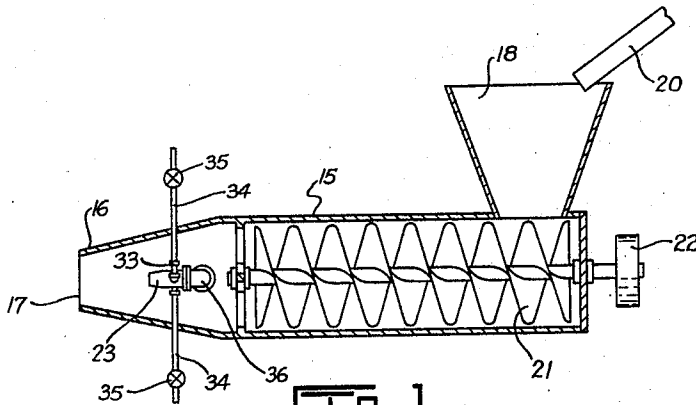


Fig. 1.

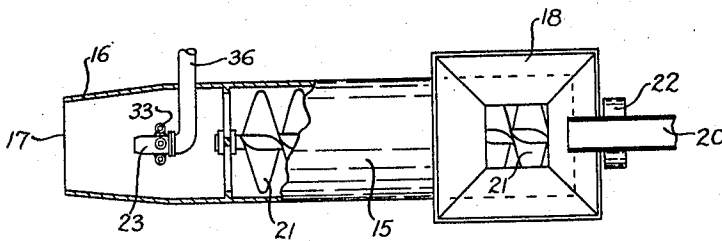


Fig. 2.

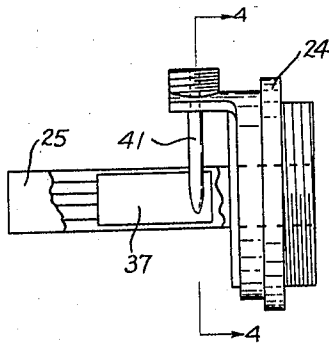


Fig. 3.

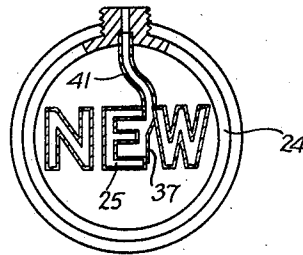


Fig. 4.

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3 Sheets-Sheet 2

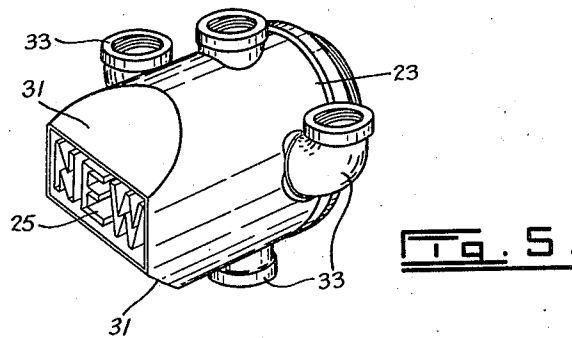


Fig. 5.

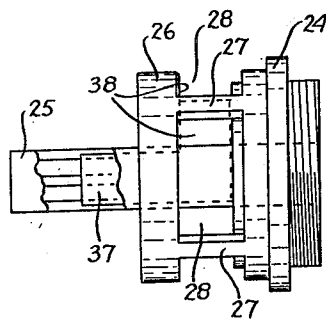


Fig. 6.

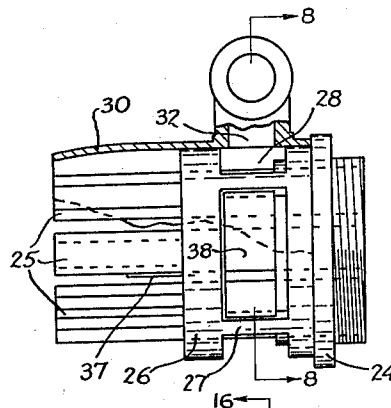


Fig. 7.

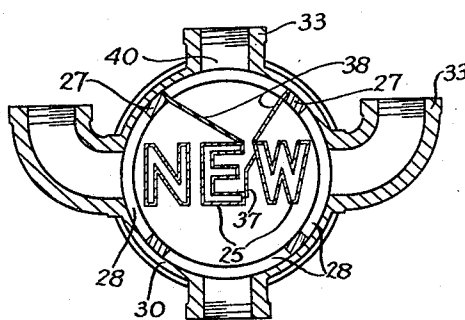


Fig. 8.

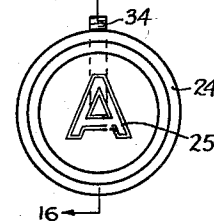


Fig. 15.

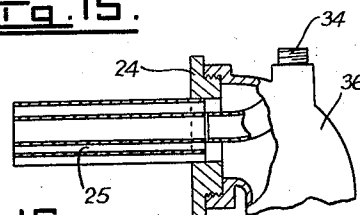


Fig. 16.

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3 Sheets-Sheet 3

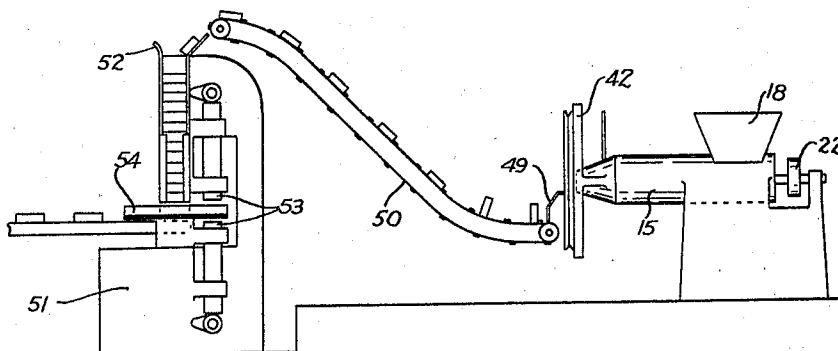


Fig. 9.

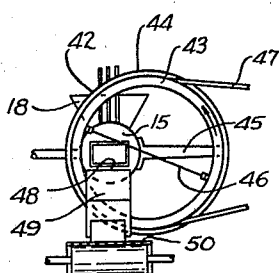


Fig. 10.

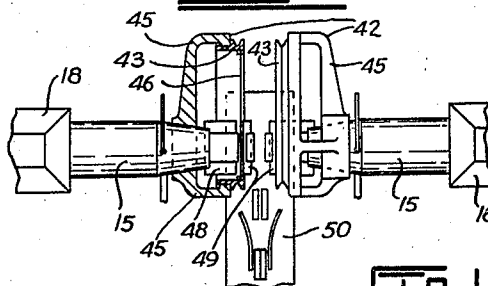


Fig. 11.

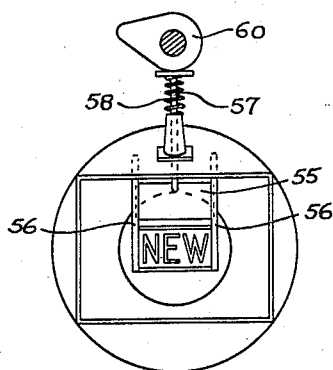


Fig. 12.

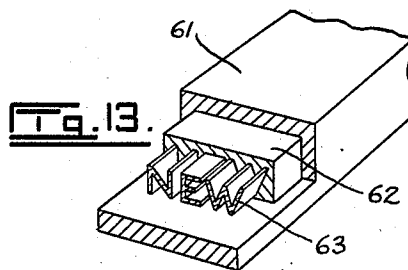


Fig. 13.

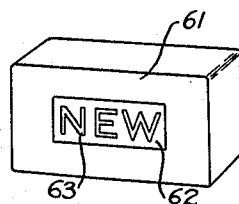


Fig. 14.

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2,296,842

METHOD OF AND APPARATUS FOR INSERT-
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Application September 12, 1940, Serial No. 356,540

19 Claims. (Cl. 25—8)

This invention relates to a method of and ap-
paratus for inserting indicia in soap bars or
cakes.

An object of the present invention is the pro-
vision of a method of and apparatus for insert-
ing indicia, such as trade-marks, letters, num-
bers, figures, monograms, designs, or the like, in
soap cakes or bars.

Another object is the provision of a method
of and apparatus for making soap cakes or bars
having indicia therein formed of a soluble plastic
material.

Another object is the provision of a method
of and apparatus for making soap cakes or bars
with desired indicia formed of soap or other
soluble material extending either completely or
part way therethrough.

A further object is the provision of a method
of and apparatus for making soap cakes or bars
having indicia formed therein which will re-
main visible until the soap completely dissolves
or breaks up.

A further object is the provision of a method
of and apparatus for making soap cakes or bars
having indicia formed therein which will dis-
solve therewith, and, at the same time, will re-
main visible and intact until the soap completely
dissolves or breaks up.

A still further object is the provision of a
method of and apparatus for making soap cakes
or bars having indicia formed of soap of a con-
trasting colour, extending partially or completely
therethrough.

At present, indicia, such as trade-marks, are
only stamped or embossed on the surface of soap
bars or cakes and, of course, these dissolve and
disappear very soon after the soap is in use. A
soap bar has been placed on the market having
an insoluble transfer picture on one surface
thereof but this does not dissolve with the soap
while the latter dissolves away from the transfer.
In other words, one surface of the soap cannot
be used because it is covered by this transfer
and in some cases the transfer accidentally falls
off before the soap bar is completely used up.
By means of this invention, it is possible to
insert indicia into soap bars or cakes which will
remain visible and complete until the bar or
cake is entirely dissolved or broken up. This
is accomplished without interfering with the ordi-
nary use of the soap in any way. The indicia
are formed of soap or some other harmless sol-
uble material and are placed in the bars in such
a way that they dissolve therewith, resulting in
the indicia remaining visible at all times without
interfering with the use of the bars.

The process of inserting indicia in soap bars
during the manufacture thereof, comprises di-
recting a flow of plastic soap through a casing,
directing a flow of plastic material of a contrast-

ing colour through a die into the main flow of
soap in the same direction and at substantially
the same speed, said die being shaped to form
the stream of material therefrom into the indicia.
As the soap and the material from the die, which
is preferably soap, progresses, it is cut into lengths
to form the bars so that the indicia extends
through each bar. When small soap bars are
required, the lengths are taken to a press and
pressed into their final shape and size but if
relatively long bars are required, the lengths are
longer and the pressing operation is usually
omitted.

Some difficulty was experienced in the forma-
tion of indicia, such as letters and numerals,
wherein it was necessary to have some of the
soap surrounding the indicia, to enter parts
thereof or pass therethrough, but this has been
successfully overcome. For example, with the
letter E it is necessary to have some of the sur-
rounding soap completely fill the spaces between
the horizontal bars. Fair results may be ob-
tained by providing means for exerting lateral
pressure on the surrounding soap. In order to
get perfectly uniform results, however, means
is provided for supplying a flow of soap under
pressure to the spaces between the horizontal
bars. The die for forming this letter is relatively
long and it is desirable to cover the right hand
side of the letter E throughout a portion of its
length but terminating at a point spaced from
the discharge end of the die. In this way, the
pressure of the soap supplied to the spaces be-
tween the horizontal bars, forces the soap evenly
throughout the entire spaces and this soap has
an opportunity of uniting with the soap sur-
rounding the letter before it reaches the end of
the die.

Another example is the letter A, with which
it is necessary to direct an additional flow of
soap through the space above the horizontal bar
since the soap surrounding the letter cannot
reach this space. If desired, the bottom of the
letter may be closed off in the same manner as
the right hand side of the letter E and for the
same purpose.

The flow of the plastic material through the
die may be made intermittent so as to form
the indicia in any desired portion of the bars.
For example, the flow of this material may be
such that the indicia merely extends from one
or both surfaces of the bars, inwardly only a
certain desired distance. Furthermore, as a nov-
elty the indicia may be formed in the middle
of the bars so that it is invisible from each outer
surface until the bars have been used. In these
cases, the means for creating the intermittent
flow and the means for cutting the soap into
lengths are synchronized.

When the indicia extend completely through

the soap bars, certain types thereof, such as words, would appear backwards on one face of each bar. If desired, this may be overcome by cutting the soap into lengths which equal approximately half of the lengths of the completed bar, and bringing these half lengths together back to back before they are taken to the press so that the word will appear properly on each face of the bars.

The apparatus for inserting indicia in soap bars, comprises a casing, means for directing a flow of plastic soap through the casing, and means for directing a flow of plastic material of a contrasting colour through the casing in the same direction as the main flow of soap and at substantially the same rate of flow, said die being shaped to form the stream of material therefrom into the required indicia, as more fully described in the following specification and illustrated in the accompanying drawings, in which:

Figure 1 is a longitudinal sectional view through a casing, showing the position of a die therein,

Figure 2 is a plan view, partly in section of the casing shown in Figure 1,

Figure 3 is a side elevation partly in section of one form of die,

Figure 4 is a transverse section taken on the line 4—4 of Figure 3,

Figure 5 is a perspective view of another form of die,

Fig. 6 is a side elevation, partly in section, of the die shown in Figure 5 with its casing removed.

Figure 7 is a plan view of the die shown in Figure 5 with the greater part of the casing broken away,

Figure 8 is a transverse section taken on the line 8—8 of Figure 7.

Figure 9 diagrammatically illustrates the apparatus for forming the soap into a bar, cutting it into lengths, and pressing the lengths into the finished product,

Figure 10 is an end elevation of one form of the cutter,

Figure 11 is a plane view of the apparatus for cutting the soap into lengths which are paired off and pressed together so that the indicia appears the same on both surfaces of each finished bar,

Figure 12 is an end elevation of a die with means for providing an intermittent movement of the indicia-forming material,

Figure 13 is a perspective view, partly in section, of a bar of soap before it is cut into lengths,

Figure 14 is a perspective view of a finished bar of soap,

Figure 15 is a reduced end view of a die for forming the letter A, and

Figure 16 is a horizontal section taken on the line 16—16 of Figure 15.

Referring more particularly to the drawings, 15 is an elongated outer casing which converges at one end, as at 16, and has a discharge opening 17 in this end. A hopper 18 is provided at the opposite end into which soap in a plastic state is fed in any suitable manner, such as by means of a trough 20. The soap entering the casing 15 from the hopper 18 is directed along the casing towards the discharge opening 17 by means of a screw feed 21 driven through a pulley 22 by a suitable source of power (not shown). It is to be understood, however, that the soap may be directed through the casing in any other de-

sired manner, such as, for example, by a plunger or by air pressure.

A die 23, see Figures 1, 2 and 5 to 8, inclusive, is mounted in the casing 15 preferably adjacent the discharge end thereof. The die 23 consists of a base 24 having projecting outwardly therefrom one or more elongated hollow forms 25 designed and shaped to form the required indicia, the number of these forms depending upon the type of indicia to be formed. In the drawings, the die is adapted to produce the word NEW so that there are three forms 25 shaped to form the letters N, E and W and they are placed side by side in their proper order. A circular support 26 spaced from and surrounding the forms 25, is carried by spaced arms 27 projecting outwardly from the base 24, said arms having spaces 28 therebetween. An inner casing 30 is removably mounted on the support 26 and extends from the base 24 outwardly to the ends of the forms 25, said casing being spaced from the forms. The outer end of the casing preferably converges, as at 31. The casing 30 is provided with one or more inlet openings 32 adapted to register with the spaces 28 between the support 26 and the base 24, while a coupling 33 is connected to the casing at each of these openings. Each coupling 33 has a pipe 34 connected thereto with a control valve 35 therein, said pipes extending from a suitable source of supply (not shown). A suitable soluble material, preferably soap, is supplied under pressure to the casing through these pipes.

The die 23 is supported in the casing 15 in any suitable manner, such as by means of a supply pipe 36 which is connected to the base 24 and extends through the casing 15 to a suitable source of supply (not shown). The base has openings therethrough registering with the hollow forms 25 and a soluble material, preferably soap, is directed by the pipe 36 through the forms 25 of the die 23. The material supplied to the casing 30 may be of the same colour as the soap directed through the casing 15 or it may be a different colour while the material directed through the forms 25 is a different colour than the material passing through the casing 30 but it may be the same colour as the soap passing through the casing 15 or it may be different, as desired.

With some indicia, it is difficult to get the material in the casing 30 to enter all the spaces around the forms 25 due to the irregularities of the outer surfaces thereof. The letter E is an example of this. In this case, a wall 37 is placed over the irregular surface of the form 25 so as completely to enclose the irregular spaces. This wall extends outwardly from the base 24 but it terminates at a point spaced from the outer end of the form 25, as clearly seen in Figures 6 and 7. A small funnel 38, see Figure 8, is supported by the arms 27 and extends from one of the spaces 28 down to the space inside the wall 37 adjacent the inner end thereof. The casing 30 is formed with an inlet opening 40 adapted to register with the funnel 38 and a coupling 33 is connected to the casing at this opening while a pipe 34 is connected to said coupling. In this way, material which is the same as that directed through the casing 30, is directed under pressure into the spaces around the form 25 and this material combines with the material in the casing before passing beyond the end of the forms.

With other indicia, there are spaces which cannot be reached by the material in the casing

30, the letter A being an example of this. The space above the horizontal bar of the letter is completely enclosed. In this example, the funnel 38 may communicate with the enclosed space of the letter and the material directed through this space. If desired, a pipe 34 may extend through the base 24 and communicate with the space above the horizontal bar, thus eliminating the necessity of having a funnel 38, as shown in Figures 15 and 16.

When the above-described apparatus is in operation, soap is directed through the outer casing 15 around the inner casing 30 and is extruded in a continuous bar through the discharge opening 17. At the same time, a soluble material, preferably soap, is directed through the die 23 at the same rate of flow as the soap passing through the casing 15, and the form or forms 25 shape the material into the desired indicia which travels along with the soap and extends throughout the entire length thereof. Furthermore, a soluble material, preferably soap, is directed through the inner casing and owing to the converging outer end thereof, a pressure is built up in this material which assists in directing the material completely around the form or forms. If necessary, some of the soluble material is directed from the funnel 38 through and/or around irregularly shaped indicia.

In this way, a continuous bar of soap is provided having the indicia extending therethrough. The material of the indicia is of a contrasting colour to that surrounding said indicia. The indicia and the soap in the casing 15 may be the same colour and the material in the casing 30 of a contrasting colour or the soap and the material in the casing 30 may be the same colour and the indicia of a contrasting colour. If desired, the soap, the indicia, and the material in the casing 30 may each be of a different colour. The term colour as used in this specification and the accompanying claims is intended to include white and black and any shades or combination of colours.

An alternative form of die is illustrated in Figures 3 and 4. In this form of the invention the supports 26, arms 27 and the casing 30 are omitted so that the soap moving through the casing 15 completely surrounds the form or forms 25. In this example, a pipe 41 is substituted for the funnel 38 for directing material beneath the plate 37 or into enclosed spaces of the indicia. The casing 15 surrounds the form or forms 25 and the material directed through the form is of a contrasting colour to that of the soap in the casing.

When the soap is extruded from the casing 15 in a continuous bar, it is cut into lengths by a suitable cutter and then each length is compressed into an individual soap bar or cake in a suitable press. If relatively long bars are required, the pressing operation may be omitted. Figure 9 diagrammatically illustrates apparatus for carrying out the complete operation.

One form of cutter is shown by way of example in Figure 10. This cutter 42 consists of a rim 43 rotatably mounted on a circular frame 44 carried by arms 45 which are supported by the casing 15. One or more cutting wires 46 extend along a diameter of the rim 43 and said rim is rotated by means of a belt 47 which is connected to a suitable source of power (not shown). A platform 48 extends outwardly from the casing 15 immediately below the discharge opening thereof and said platform terminates just short

of the plane in which the wire 46 operates, while a chute 49 begins on the other side of said plane and extends to a desired point, which may be a conveyer belt 50, as shown.

As the soap is extruded from the casing 15 and moves over the platform 48, the wire 46 of the cutter 42, cuts the soap into lengths, the latter then being taken to a press for the final operation. As a rule, only comparatively short lengths are taken to a press, while relatively long lengths are not always pressed.

Any standard type of soap press may be used for this purpose. In this example, the belt 50 conveys the lengths of soap from the cutter 42 to a press 51 having a feed hopper 52, a pair of suitably shaped dies 53, and a rotary conveyer 54 which takes the lengths from the hopper to a point between the dies where each length is pressed into a finished soap bar or cake. This pressing operation insures a complete union between the bar and the indicia therein.

With the apparatus described so far, the indicia is formed in and extends completely through each bar of soap. If the indicia is a letter or a word, the letter or word appears in its correct form on one surface of the bar but on the opposite surface the letter or word appears backwards. If desired, this may be overcome by cutting the soap from the casing 15 into lengths equal to half the length of the finished product and then turning every second one over so that they enter the press 51 in pairs with the lengths of each pair back to back.

A very simple method of overcoming this difficulty is shown in Figure 11. A pair of casings 15 with their associated elements are opposed to each other but the dies 23 of both are turned around so that the indicia therein is reversed. Actually, with dies of this nature it is only necessary to reverse the form or forms 25 in relation to the base 24 so that the indicia formed in the bars appear backwards. With this arrangement, the cutters 42 cut off the required lengths of soap and they fall in pairs on the conveyer belt 50. These lengths are back to back so that the indicia appears on the outer faces in the proper manner. The press 51 then presses each pair of lengths together into a finished soap bar.

If desired, the flow of material through the die 23 may be intermittent. To accomplish this, a shutter 55, see Figure 12, mounted in guides 56 is adapted to be moved momentarily to cut off the flow of material from the outer end of the form or forms 25. A rod 57 extends from the shutter upwardly through the casing 15 and a spring 58 surrounding said rod normally holds the shutter in its uppermost position while a cam 60 is operated in any suitable manner to move the shutter downwardly to close the end of the die.

This intermittent flow of material through the shaping die may be used to place the indicia in any desired portion of each finished soap bar. For example, it may extend inwardly only part way from one or both surfaces of the bar or a novelty bar may be turned out having the indicia in the centre thereof, said indicia being invisible until the bar is used one or more times.

Figure 13 shows a continuous bar of soap extruded from the casing 15 as it would appear if part thereof were cut away, the die shown in Figure 5 having been used in this case. In this figure, 61 is the soap which is directed through the outer casing 15, 62 the material directed through the inner casing 30, and 63 is the indicia formed by the material passing through the

forms 25 of the die. Figure 14 illustrates a completed soap bar formed from a bar such as shown in Figure 13. If the die of Figure 3 were used, the material 62 would not appear in the finished product.

As this apparatus is in operation, the casing 15 forms the soap into bars while the form or forms 25 of the die preform the indicia and insert it into the bars. Actually, the form or forms create a hole in the bars into which the material 10 passing through the form or forms, is injected. While it is preferable to insert the indicia during the formation of the bars, it is obvious that a hole may be formed in the bars and then the indicia inserted thereafter.

From the above, it will readily be seen that a method of and apparatus for making soap bars with any desired indicia formed of soap or any other soluble material extending either part way or completely therethrough, has been provided, said indicia thereby dissolving with the soap and remaining visible until the soap completely dissolves or breaks up.

Various modifications may be made in this invention without departing from the spirit thereof or the scope of the claims, and, therefore, the exact forms shown are to be taken as illustrative only and not in a limiting sense, and it is desired that only such limitations shall be placed thereon as are disclosed in the prior art or are set forth in the accompanying claims.

What we claim as our invention is:

1. A method of inserting indicia in soap bars, comprising forming plastic soap into bars, forming a hole in the bars the shape of the indicia, filling said hole with a water-soluble material, subjecting the bar to external pressure after the material is inserted therein, and cutting each bar into lengths.

2. A method of inserting indicia in soap bars, comprising forming the plastic soap into bars, forming a hole in the bars the shape of the indicia, said hole extending completely through each bar, filling the hole with a water-soluble material, and subjecting the bar to external pressure during and after the time the material is inserted therein.

3. A method of inserting indicia in soap bars, comprising directing a flow of plastic soap through a casing, directing a flow of plastic material of a contrasting colour through a die into the main flow of soap, cutting the soap into lengths after emerging from the casing, placing the lengths back to back in pairs with the indicia appearing properly on the outer surfaces thereof, and pressing each pair of lengths into a single completed soap bar.

4. A method of inserting indicia in soap bars during the manufacture thereof, comprising directing a flow of plastic soap through a casing, directing a flow of a plastic material of a contrasting colour through a die into the main flow of soap in the same direction and at substantially the same rate of flow, said die being shaped to form the stream of material therefrom into the indicia, and subjecting the bar continuously to external pressure after the material is inserted therein.

5. A method of inserting indicia in soap bars during the manufacture thereof, comprising directing a flow of plastic soap through a casing, directing an intermittent flow of plastic soap of a contrasting colour through a die into the main flow of soap in the same direction and at substantially the same rate of flow, said die being

shaped to form the stream of material therefrom into the indicia, and cutting the combined flow of soap into lengths to form the bars after emerging from the casing, said cutting operation being synchronized with the intermittent flow of soap through the die, whereby the indicia extends through at least part of each bar.

6. Apparatus for inserting indicia in soap bars during the manufacture thereof, comprising a casing, means for directing a flow of plastic soap through the casing, a die mounted within the casing, means for directing an intermittent flow of plastic soap of a contrasting colour through the die into the main flow of soap in the same direction, said die being shaped to form the stream of material therefrom into the indicia, means for cutting the soap into lengths after emerging from the casing, and means for synchronizing the cutting means with the intermittent flow of the material from the die, whereby the indicia extends through at least part of each soap bar.

7. Apparatus for inserting indicia in soap bars during the manufacture thereof, comprising a casing, means for directing a flow of plastic soap through the casing, an irregularly shaped die mounted within the casing, said die having at least one space on its surface formed by the irregularities thereof, means for directing a flow of plastic material of a contrasting colour through the die into the main flow of soap in the same direction, said die being shaped to form the stream of material therefrom into the indicia, and additional means for directing a flow of plastic soap under pressure through the space in the die.

8. Apparatus for inserting indicia in soap bars during the manufacture thereof, comprising a casing, means for directing a flow of plastic soap through the casing, a die mounted within the casing, said die having at least one space therein completely enclosed thereby, means for directing a flow of plastic soap through the space enclosed by the die, and means for directing a flow of plastic material of a contrasting colour through the die into the main flow of soap in the same direction, said die being shaped to form the stream of material therefrom into the indicia.

9. Apparatus for inserting indicia in soap bars during the manufacture thereof, comprising a casing, means for directing a flow of plastic soap through the casing, a base mounted within the casing, at least one elongated form projecting outwardly from the base in the direction of the flow of soap through the casing, and said form being irregularly shaped and having at least one space formed in the surface thereof, a plate covering said space, means for directing a flow of plastic soap through the space beneath the plate, and means for directing a flow of plastic material of a contrasting colour through the form into the soap, said form being shaped to form the stream of material therefrom into the indicia.

10. Apparatus for inserting indicia in soap bars during the manufacture thereof, comprising a casing, means for directing a flow of plastic soap through the casing, a base mounted within the casing, at least one elongated form projecting outwardly from the casing in the direction of the flow of soap through the casing, said form being irregularly shaped and having at least one space formed in the surface thereof, a plate covering said space, said plate extending outwardly from the base and terminating at a point spaced from the outer end of the form, means for direct-

ing a flow of plastic soap through the space beneath the plate, the soap in the casing and that emerging from the space in the form uniting before reaching the outer end of the latter, and means for directing a flow of plastic material of a contrasting colour through the form into the soap, said form being shaped to form the stream of material therefrom into the indicia.

11. Apparatus for inserting indicia in soap bars during the manufacture thereof, comprising an outer casing, means for directing a flow of plastic soap through the casing, a base mounted within the casing, at least one elongated form projecting outwardly from the base in the direction of the flow of soap through the casing, means for directing a flow of a plastic material of a contrasting colour through the form into the soap, said form being shaped to form the stream of material therefrom into the indicia, an inner casing mounted on the base surrounding and spaced from the form, said inner casing having a discharge opening adjacent the outer end of the form, means for directing a plastic material through the inner casing, and means for creating a pressure in the inner casing.

12. Apparatus for inserting indicia in soap bars during the manufacture thereof, comprising an outer casing, means for directing a flow of plastic soap through the casing, a base mounted within the casing, at least one elongated form projecting outwardly from the base in the direction of the flow of soap through the casing, means for directing a flow of a plastic material of a contrasting colour through the form into the soap, said form being shaped to form the stream of material therefrom into the indicia, an inner casing mounted on the base surrounding and spaced from the form, said inner casing having a discharge opening adjacent the outer end of the form, and means for directing a plastic material through the inner casing, said inner casing converging towards the discharge opening thereof whereby a pressure is created in the material therein.

13. Apparatus for inserting indicia in soap bars during the manufacture thereof, comprising a casing, means for directing a flow of plastic soap through the casing, a base mounted within the casing, at least one elongated form projecting outwardly from the base in the direction of the flow of soap through the casing, a shutter mounted in guides adapted to be moved across the end of the form, means for intermittently moving the shutter to close off the form, and means for directing a flow of plastic material of a contrasting colour through the form into the soap, said form being shaped to form a stream of material therefrom into the indicia.

14. Apparatus for inserting indicia in soap bars during the manufacture thereof, comprising a pair of opposed casing, means for directing a flow of plastic soap through each casing, a die mounted within each casing, means for directing a flow of plastic material of a contrasting colour through the dies into the main flow of soap in the same direction, said dies being shaped to form the stream of material therefrom into the indicia which appear backwards in the soap, means for cutting the soap into lengths after emerging from the casing, means for bringing the lengths from both casings back to back in pairs, and means for pressing each pair into a finished soap bar with the indicia appearing properly on each surface thereof.

15. Apparatus for inserting indicia in soap, comprising a casing, means for directing a flow of plastic soap through the casing, a die mounted within the casing, means for directing a flow of a plastic material of a contrasting colour through the die into the main flow of soap in the same direction, said die being shaped to form the stream of material therefrom into the indicia, and means for applying external pressure to the soap in the casing after it has passed the die.

16. Apparatus for inserting indicia in soap, comprising a casing, means for directing a flow of plastic soap through the casing, a die mounted within the casing, means for directing a flow of a plastic material of a contrasting colour through the die into the main flow of soap in the same direction, said die being shaped to form the stream of material therefrom into the indicia, and means for applying external pressure to the soap in the casing as it passes and after it passes the die.

17. Apparatus for inserting indicia in soap comprising a casing having a discharge end, said casing converging towards its discharge end, means for directing a flow of plastic soap through the casing and out through the discharge end thereof, a die mounted within the casing adapted to discharge into the converging section thereof, and means for directing a flow of plastic material of a contrasting colour through the die into the main flow of soap in the same direction, said die being shaped to form the stream of material therefrom into the indicia, whereby external pressure is applied to the soap within the casing and around the formed indicia.

18. Apparatus for inserting indicia in soap comprising a casing having a discharge end, said casing converging towards its discharge end, means for directing a flow of plastic soap through the casing and out through the discharge end thereof, an irregularly shaped die mounted within the converging section of the casing and adapted to discharge therein, and means for directing a flow of plastic material of a contrasting colour through the die into the main flow of soap in the same direction, said die being shaped to form the stream of material therefrom into the indicia, whereby external pressure is applied to the soap within the casing as it passes and after it passes the die.

19. Apparatus for inserting indicia in soap, comprising a casing having a discharge end, said casing converging towards its discharge end, means for directing a flow of plastic soap through the casing and out through the discharge end thereof, an irregularly shaped die mounted within the converging section of the casing, said die having at least one space on its surface formed by the irregularities thereof, means for directing a flow of plastic material of a contrasting colour through the die into the main flow of soap in the same direction, said die being shaped to form the stream of material therefrom into the indicia, and means for directing a flow of plastic soap under pressure through the space in the die, whereby external pressure is applied to the soap within the casing as it passes and after it passes the die.

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