

Specification of John Thompson and James George Ingram : caps for feeding bottles.

Contributors

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A.D. 1868, 14th JULY. N° 2223.

S P E C I F I C A T I O N

OF

JOHN THOMPSON
AND
JAMES GEORGE INGRAM.

CAPS FOR FEEDING BOTTLES.

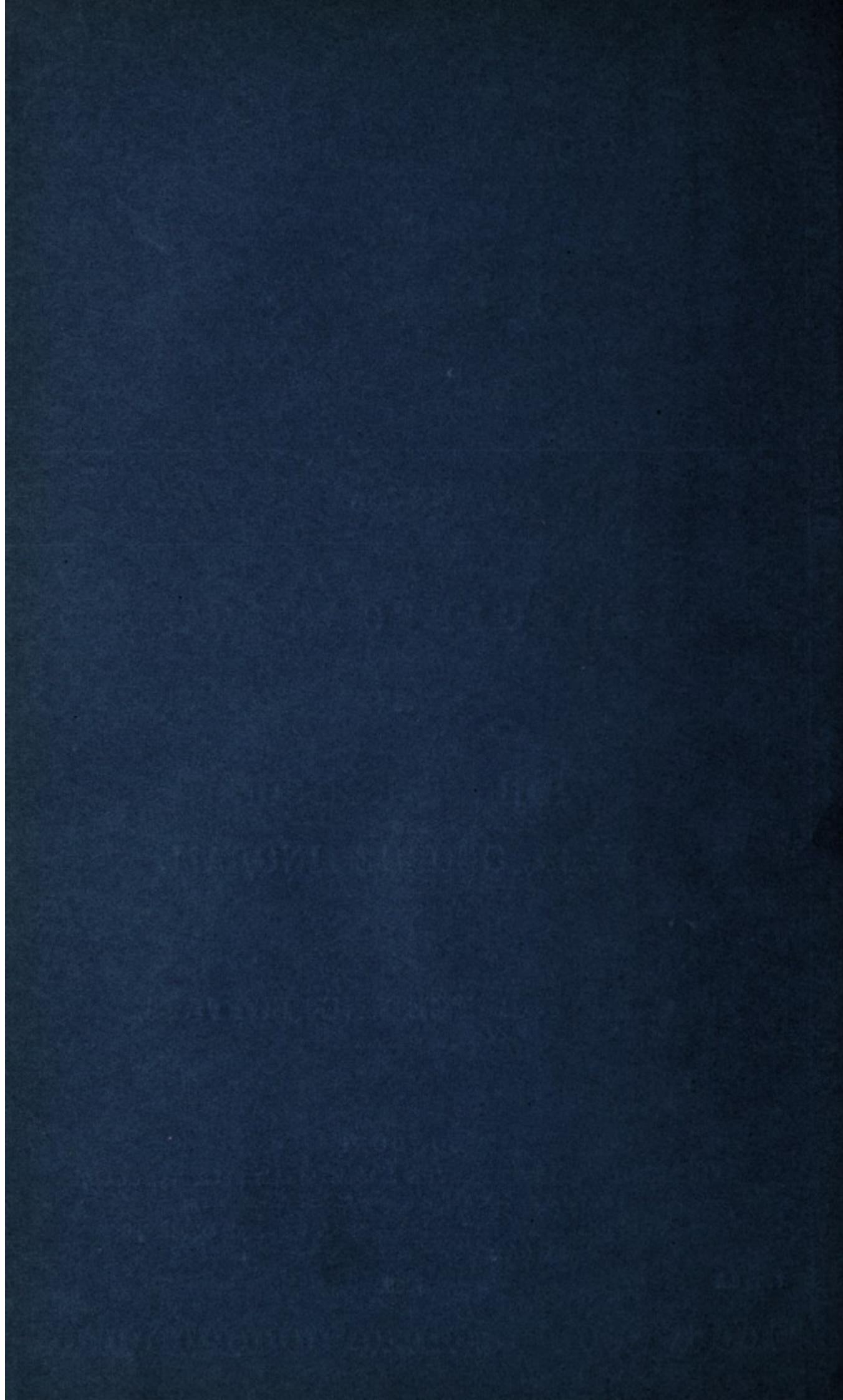
LONDON:

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1869.





A.D. 1868, 14th JULY. N° 2223.

Caps for Feeding Bottles.

LETTERS PATENT to John Thompson, of No. 11, Aldersgate Street, and James George Ingram, of Wilmer Gardens, Hoxton, for the Invention of "**IMPROVEMENTS IN CAPS FOR FEEDING BOTTLES FOR INFANTS AND INVALIDS.**"

Sealed the 12th January 1869, and dated the 14th July 1868.

PROVISIONAL SPECIFICATION left by the said John Thompson and James George Ingram at the Office of the Commissioners of Patents, with their Petition, on the 14th July 1868.

We, JOHN THOMPSON, of No. 11, Aldersgate Street, and JAMES GEORGE INGRAM, of Wilmer Gardens, Hoxton, do hereby declare the nature of the said Invention for "**IMPROVEMENTS IN CAPS FOR FEEDING BOTTLES FOR INFANTS AND INVALIDS,**" to be as follows:—

According to this Invention we form the cap of a feeding bottle of india-rubber moulded to form in dies by pressure and vulcanized, the sides of the cap being made so that they will slip over and fit closely against the mouth of a feeding bottle; and in order that the sides of the cap may not be too elastic we combine cloth or fibre with the india-

Thompson & Ingram's Improvements in Caps for Feeding Bottles.

rubber of which the sides are composed ; a ring of metal may also be imbedded in the india-rubber at the top of the cap if desired. In the centre of the top of the cap a hole is formed, through which is to be led the flexible tube through which the contents of the bottle are to be drawn off. A number of fine perforations are also formed through the 5 cap to allow of air entering the bottle as fluid is withdrawn therefrom. We prefer to form each of these perforations of three short straight slits radiating from a point, thus Y, but the perforations may be otherwise formed.

SPECIFICATION in pursuance of the conditions of the Letters Patent, 10
filed by the said John Thompson and James George Ingram in
the Great Seal Patent Office on the 13th January 1869.

TO ALL TO WHOM THESE PRESENTS SHALL COME, we, JOHN THOMPSON, of No. 11, Aldersgate Street, and JAMES GEORGE INGRAM, of Wilner Gardens, Hoxton, send greeting. 15

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Fourteenth day of July, in the year of our Lord One thousand eight hundred and sixty-eight, in the thirty-second year of Her reign, did, for Herself, Her heirs and successors, give and grant unto us, the said John Thompson and James George 20 Ingram, Her special licence that we, the said John Thompson and James George Ingram, our executors, administrators, and assigns, or such others as we, the said John Thompson and James George Ingram, our executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times 25 thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "**IMPROVEMENTS IN CAPS FOR FEEDING BOTTLES FOR INFANTS AND INVALIDS**," upon the condition (amongst others) that we, the said John Thompson 30 and James George Ingram, our executors or administrators, by an instrument in writing under our or their hands and seals, or under the hand and seal of one of us or them, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the 35

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Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

NOW KNOW YE, that I, the said John Thompson, on behalf of myself and the said James George Ingram, do hereby declare the
5 nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof, that is to say:—

According to this Invention we form the cap of a feeding bottle of india-rubber moulded to form in dies by pressure and vulcanized, the
10 sides of the cap being made so that they will slip over and fit closely against the mouth of a feeding bottle. In the centre of the top of the cap a hole is formed through which is to be led the flexible tube through which the contents of the bottle are to be drawn off. A number of
15 fine perforations are also formed through the cap to allow of air entering the bottle as fluid is withdrawn therefrom. We prefer to form each of these perforations of three short straight slits radiating from a point, thus Y, but the perforations may be otherwise formed.

Having thus described the nature of our Invention, we will proceed to describe more fully the manner of performing the same.

20 Figure 1 of the Drawing hereunto annexed shows in section the form to which we prefer to mould the cap of a feeding bottle; a plan view of the cap is also shown at Figure 2. In Figure 1 is also shown the ordinary flexible tube *a* of the feeding bottle passing through the hole in the centre of the top of the cap; the outer
25 end of this tube has a nipple attached to it, and the inner end is connected to a length of glass tube which passes down to the bottom of the interior of the feeding bottle, as is usual. The cap is by preference formed with a thickened rim around its lower edge, as is shown, to increase its strength and rigidity. The vulcanizable compound of india-
30 rubber and sulphur of which the cap is to be formed is moulded to the shape desired in dies, a disc or lump of the compound being placed in the hollow die, and the plunger of the die then forced down upon it, by which the compound is caused to fill all the parts of the mould, and is so brought to the desired shape. If desired a thin sheet of pure india-
35 rubber may be placed above the disc or lump of the vulcanizable compound before the plunger is forced down on to it, so that this piece of pure rubber may form a lining to the inside of the top of the cap,

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this being the only part of the cap which comes in contact with the contents of the feeding bottle. When the cap has thus been moulded to form it is subjected to heat to effect the vulcanizing process, as is well understood, and after this has been completed the leech bite or other perforations are formed through its top; we prefer, as above stated, 5 to form them of three straight slits radiating from a point; these are produced in the top of the cap by a cutter or punch suitably formed for the purpose of three radiating blades of thin steel. When using caps of india-rubber thus moulded to form in dies and vulcanized we prefer to form around the neck of the feeding bottle a narrow projecting ring 10 or beading slightly larger in diameter than the interior diameter of the cap, so that after the cap has been drawn over this projecting ring the sides of the cap spring inwards to their original diameter, and so the cap holds firmly on the mouth of the bottle.

If desired cloth or fibre reduced to a powder may be mixed with the 15 india-rubber compound from which the cap is moulded, so as to reduce the elasticity of the cap, but this we do not find to be necessary.

Having thus described the nature of our Invention, and the manner of performing the same, we would have it understood that what we claim is, the forming caps of feeding bottles, substantially as herein 20 described, from vulcanizable india-rubber compounds moulded to form in dies by pressure, and subsequently vulcanized or changed.

In witness whereof, I, the said John Thompson, have hereunto set my hand and seal, this Twelfth day of January, in the year of our Lord One thousand eight hundred and sixty- 25 nine.

J. THOMPSON. (L.S.)

LONDON:

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A.D. 1868, JULY 14, N^o 2223,
THOMPSON & INGRAM'S SPECIFICATION.

FIG. 1.

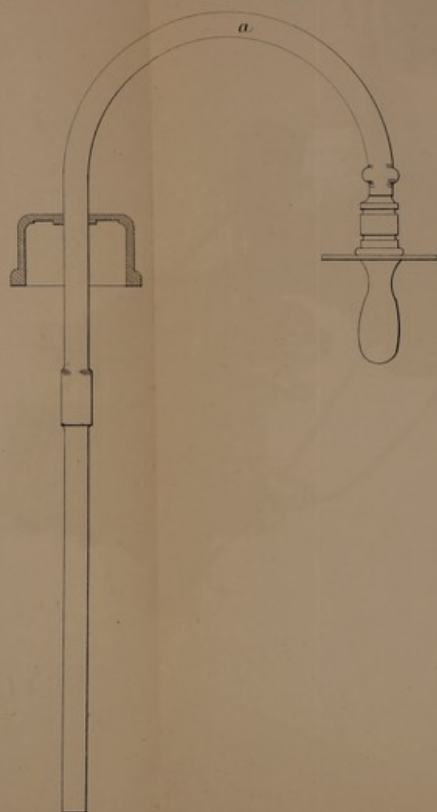


FIG. 2.



The filed drawing is not colored.

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A.D. 1868. Jan. 14. 2. 1/2