

(No Model.)

2 Sheets—Sheet 1.

J. G. INGRAM.

MANUFACTURE OF TOBACCO POUCHES.

No. 385,628.

Patented July 3, 1888.

FIG. 1.

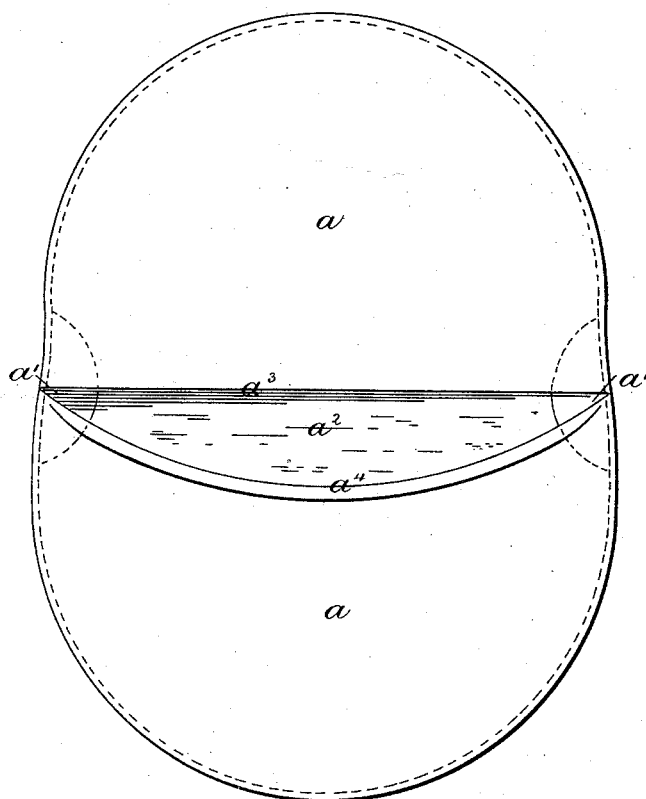
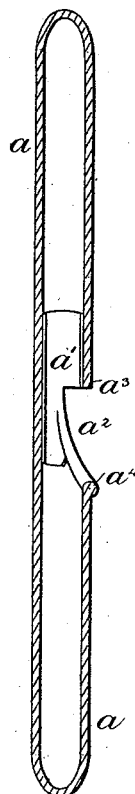


FIG. 2.



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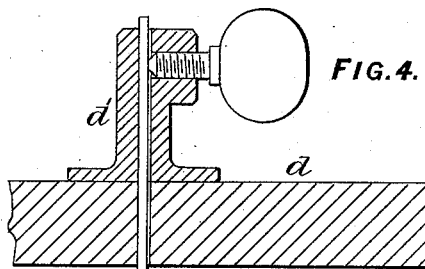
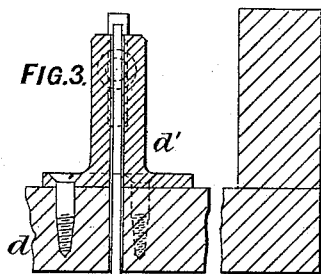
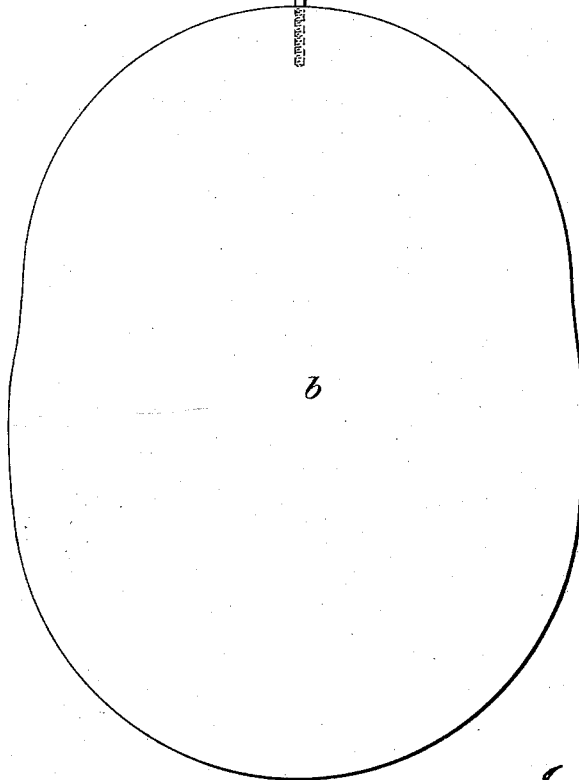
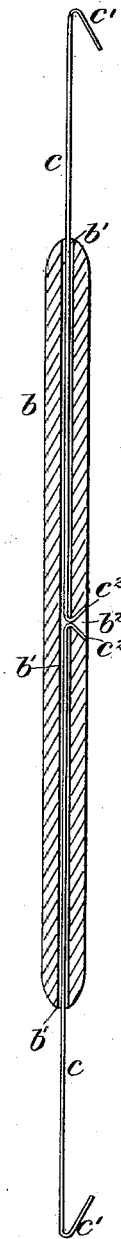


FIG. 5.



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UNITED STATES PATENT OFFICE.

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MANUFACTURE OF TOBACCO-POUCHES.

SPECIFICATION forming part of Letters Patent No. 385,628, dated July 3, 1888.

Application filed October 12, 1887. Serial No. 252,172. (No model.)

To all whom it may concern:

Be it known that I, JAMES GEORGE INGRAM, of Felstead Street, Hackney Wick, London, England, india-rubber manufacturer, a subject
5 of the Queen of Great Britain, have invented certain new and useful Improvements in the Manufacture of Tobacco-Pouches, of which the following is a specification.

In the manufacture of tobacco-pouches of
10 the "Horsey" pattern and of some other forms the pouch is manufactured of a number of pieces of sheet india-rubber cut to the proper shapes and cemented together at their edges. It frequently results from this method of man-
15 ufacture that even comparatively new pouches come apart at the joins, and thereby become useless.

Now the object of my invention is to entirely remove this objectionable feature by forming
20 the pouch without any join or seam therein.

I will describe my invention as applied to the manufacture of the Horsey pouch, such as represented in the accompanying drawings, in which—

25 Figure 1 is a side elevation or face view of the pouch. Fig. 2 is a vertical longitudinal section of the pouch in its extended or open position. Fig. 3 is a vertical section of the dipping-mold and device for supporting the
30 same. Fig. 4 is a side elevation of the same. Fig. 5 is a vertical section of a modified form of the mold.

For this purpose I form a mold, *b*, as represented at Figs. 3 and 4, of any suitable metal
35 or alloy, to the shape of the interior of the pouch, *a*, required to be produced, and I then, by the process of dipping the said mold *b* into a solution of india-rubber or of any desired india-rubber compound, produce on such mold
40 a coating of any desired thickness entirely without seam. The corners of the pouch *a* are preferably strengthened by means of pieces, *a'*, of india-rubber, or of india-rubber or other fabric, which may be applied to the mold *b* be-
45 fore commencing the dipping process, or may be placed in proper position after a thin coating of india-rubber has been formed on the mold *b*. Then, by the dipping or further dipping of the mold into the solution, the said
50 strengthening-pieces are firmly secured in position either on the inside of the pouch or in-

intermediate of the thickness thereof. These strengthening-pieces may, however, be applied to the pouch after the same is formed on the mold.

When the desired thickness of india-rubber
55 or of india-rubber compound has been obtained upon the mold *b*, an opening, *a²*, is cut therein, so as to form the lips *a³* *a⁴* of the pouch, and the raw edge of the lip *a⁴* is then strength-
60 ened by turning over a portion of the material forming the body of the pouch, or it may be strengthened in other suitable manner. The completed pouch is then cured or vulcanized
65 in any well-known and suitable manner, after which the mold *b* is removed from the pouch *a* through the opening *a²* between the lips thereof.

The rubber solution or compound to form the pouch may be colored in any desired man-
70 ner, or color may be applied to the pouch *a* at any other stage of the manufacture.

To facilitate the manipulation of the mold
75 *b*, a wire, *c*, may be fixed in one end thereof, and the other end of such wire may be removably fixed to a board, *d*, by means of clamps *d'*, a number of such molds being preferably arranged on one board, by which means they can be simultaneously dipped into the solution. On removal of the molds from the solution after
80 each dipping process the surplus solution collected at the lower edge thereof is carefully removed, after which the molds are reversed in position by standing the board *d* on a table
85 or other support, by which means the thickness of the coating is equalized.

When it is desired to remove the pouch from the mold, the wire *c* is released from the clamp
85 *d'* and the pouch is drawn off the mold, the wire *c* passing through the small hole formed in the pouch thereby.

When using comparatively thick wires *c* to support the molds *b*, a hole is formed in one end of the pouch, which, if desired, may be stopped before submitting the pouch *a* to the
95 curing or vulcanizing process. If desired, however, the construction of mold represented at Fig. 5 may be employed in carrying my invention into effect. In this case a small tube, *b'*, is cast within the thickness of the mold and
100 from end to end thereof, and a countersunk hole, *b²*, communicating with such tube *b'*, is

made in the center of the mold. A very thin supporting-wire, *c*, is then passed through the hole *b*² and out through one end of the tube *b'*. The ends *c'* *c*² of such wire *c* are bent, as shown, 5 so as to enable the mold to be suspended from a suitable dipping board or frame, a similar wire *c* being inserted from the other end of the tube *b'*, to enable the mold to be readily reversed in position when required. Then, when 10 the pouch is completed, the wires *c* have their ends *c'* cut off, and are then pulled out of the mold, when it will be found that only very small and unimportant holes have been made thereby in the pouch.

15 It will be understood that other forms of tobacco-pouches may be manufactured in a similar manner to that above described.

Having now particularly described and ascertained the nature of my said invention and 20 in what manner the same is to be performed, I declare that what I claim is—

1. The process of manufacturing tobacco-pouches which consists in dipping a mold into a solution of the pouch-forming material, form-

ing the opening in said pouch, re-enforcing the 25 corners of said opening, and subsequently removing the mold therefrom, as set forth.

2. The process of manufacturing tobacco-pouches which consists in coating a mold with a solution of rubber or suitable composition, 30 incorporating re-enforcing strips at desired locations during the process of coating the mold, and subsequently cutting the mouth of the pouch between said re-enforce and removing the mold therefrom, as set forth. 35

3. The process of manufacturing tobacco-pouches which consists in coating a mold of desired shape with a solution of rubber, incorporating re-enforcing strips therein at suitable 40 locations, forming the mouth of the pouch between said re-enforcing strips, vulcanizing or curing the pouch thus formed, and subsequently removing the mold, as set forth.

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Witnesses:

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