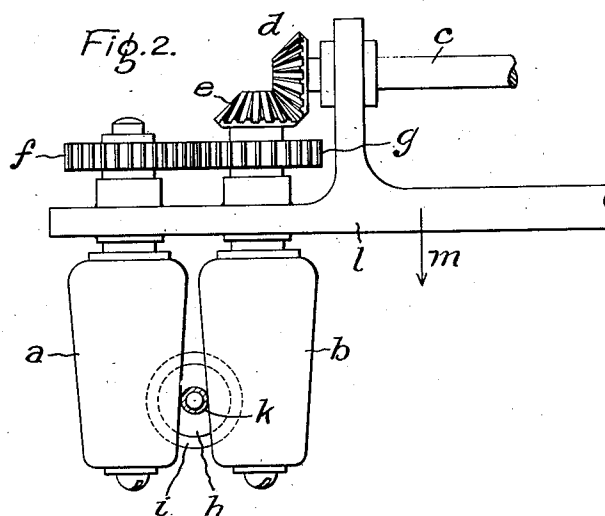
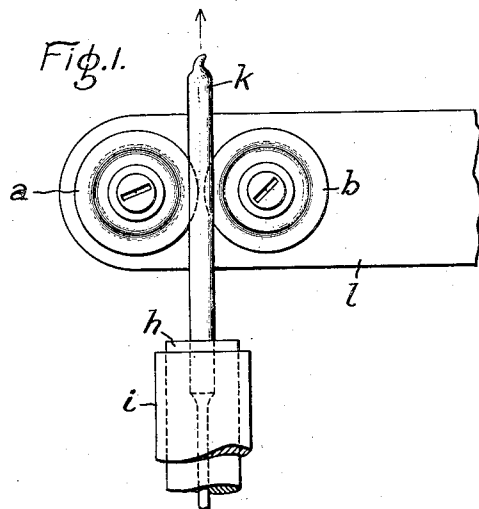


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1,640,458

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APPARATUS FOR UNFITTING TUBING

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APPARATUS FOR UNFITTING TUBING.

Application filed May 3, 1924, Serial No. 710,926, and in Germany June 7, 1923.

Our invention relates to a method of and apparatus for disengaging or separating the elements of a fitting such as a hose and stem. This invention is particularly adapted for use in connection with the manufacture of evacuated glass containers such as are used for incandescent lamps and the like.

In the making of evacuated glass containers, especially for incandescent lamps and similar apparatus, the bulb is evacuated through a small exhaust tube which is connected to the air pump by means of a rubber connection. Upon the evacuation of the bulb, the small exhaust tube is melted off. In the past, that portion of the exhaust tube which remains in the rubber connection has been wrenched out by means of a drift, a fork or a similar agent. However, this means that the rubber is continually subjected to a lateral stressing so that, after a short time, it becomes defective. This is so because the rubber is widened out during this process and thus, the air-tight connection to the air pump is impaired with the result that air often escapes into the glass bulb connected to the pump.

The present invention covers a device in the case of which the exhaust tube is removed from the rubber hose by means of drums or rolls which move in opposite directions and which take hold on both sides of the exhaust tube so that it is pulled out in the direction of its longitudinal axis without the occurrence of any lateral stressing of the rubber connection. As a consequence, the material of the connection will not be strained nearly as much as it has been in the past and therefore, the rubber connection can be used much longer without any impairment of the air-tight connection.

On the drawing one example of the construction of the invention is shown, Fig. 1 being an elevation and Fig. 2 being a plan. The device consists of two conical drums *a* and *b*, which are driven in opposite direction by a common shaft *c* through bevel gears *d* and *e*, and toothed gears *f* and *g*. That portion of the exhaust tube *h* which sticks in a rubber connection *k* of the pump line *i* will be gripped on both sides by the rollers when it is moved in between the lat-

ter and will be pulled out of *h* in the direction of the arrow.

Advantageously, the device shown can be used on revolvable pump tables since, with the conical shape of the drums, the end of the tube to be removed can be fed in between the drums laterally until it is taken hold of automatically by them. To this end, the bracket *l* which supports the rollers can be moved in the direction of arrow *m* as soon as the pump table has moved from the melting-off position into the discharge position. However, the pump table or that portion of it which carries the rubber connection can also be movable in relation to the drums for the purpose of making the latter take hold of the exhaust tube. Through the conical shape of the drums the further advantage is attained that these will always take a safe hold, even in the case of tubes of different diameters.

What we claim as new and desire to secure by Letters Patent of the United States is:—

1. In a stem extractor for use in separating the tube and the stem elements of a fitting, a pair of rollers geared together to rotate in opposite directions, said rollers suitably spaced apart whereby the stem projecting from a tube may be gripped by the rollers and extracted from the tube.

2. In a device for extracting tube and stem elements from a fitting, a pair of cone rollers adapted to be rotated in opposite directions, said rollers spaced apart whereby the stem in engagement with a tube may be gripped between the walls of the cones and extracted while the tube is held.

3. In a stem extractor for use in separating the tube and stem elements of a fitting, a pair of rollers geared together to rotate in opposite directions, said rollers suitably spaced apart whereby the stem projecting from the tube may be gripped by the rollers and extracted from the tube while the tube is held, said rollers being mounted upon an arm, said arm being movably mounted whereby the rollers may be moved into engagement with the stem.

4. In a device for extracting a stem from its holder, a pair of surfaces located in proximity and at a slant with respect to each

other, whereby the stem may be wedged between the two surfaces by inserting the stem between the surfaces sidewise, and means for moving said surfaces to withdraw the stem from the holder. 10

5 In a device for extracting a stem from its holder, a pair of rollers located in proximity of each other and spaced apart to form a tapering opening whereby the stem may be inserted between the rollers from the side and wedged between said rollers, and means for rotating the rollers to withdraw the stem from the holder.

In witness whereof, we have hereunto set our hands this 16th day of April, 1924.

WILLY LEDIG.
HEINR. ASMUSSEN.