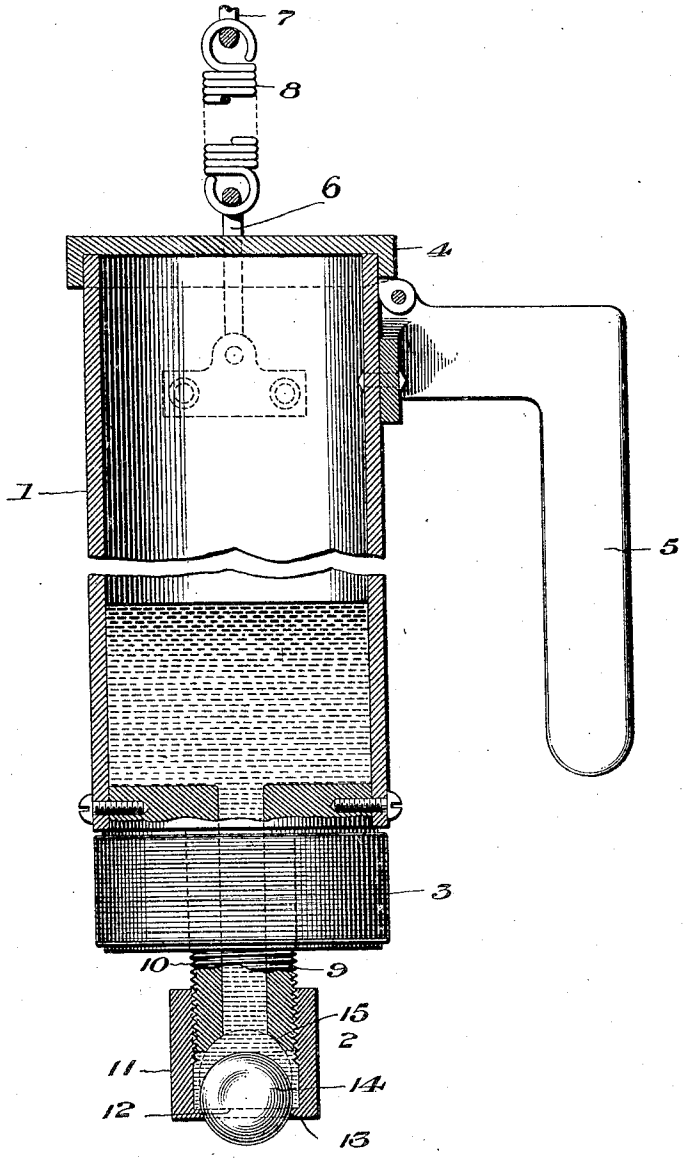
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M. A. REPLOGLE

MEASURING DISPENSING DEVICE

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UNITED STATES PATENT OFFICE.

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MEASURING DISPENSING DEVICE.

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My invention relates, broadly, to sealing devices, and more specifically, to such instrumentalities adapted for use in measuring and dispensing a viscous material, such as pitch, rosin, or the like.

In certain industries, notably those engaged in the manufacture of pneumatic tires and tubes, machines are utilized for disposing a wrapper, either commercial or otherwise, about tire casings, tubes, and other articles. This wrapper is formed from a strip of material that is fed from a stock roll, and is then wound about the article in the form of a helical coil, the strip being severed at the end of the wrapping operation. Various procedures are resorted to for fastening either the loose end of the wrapper, or for fastening the loops together to prevent them from uncoiling, or, in other words, to secure the wrapper in such manner that the advantageous results of the tension, to which it has been subjected, will not be lost, but, so far as I am aware, these machines, as a class, do not include devices for effectively accomplishing this fastening operation.

My invention is particularly designed for use in conjunction with machines that are used in the above described capacity, and contemplates an organization of simple devices through the medium of which a quantity of quick drying adhesive may be deposited by an operator upon the surface of the wrapping to effectively seal it without loss of time on the part of the operator.

The invention also comprehends devices for accurately measuring the amount of adhesive to be deposited with each operation, together with means for heating the material to reduce it, as in the case of pitch, to fluid form, and to heat each load to the same temperature.

In the drawing, accompanying and forming a part of this specification, I have illustrated a preferred embodiment of the invention as hereinafter described in detail and particularly pointed out in the claims appended hereto.

Reference being had to the drawings, it will be seen that the device comprises, in general, a receptacle that is designated by the numeral 1, measuring and dispensing means designated by the numeral 2, and a heating coil 3 that is disposed between the receptacle and the measuring device. The receptacle 1 may be of any desired form, but it is preferably cylindrical in form and is provided with a cover 4, of any suitable construction, and a handle 5. The device is designed to be suspended over a machine for movement toward or away from the article, and to this end a bail 6 is provided for the receptacle by which it is swingably mounted upon the end of a depending cable 7, or any suitable suspension means. The cable 7 may be attached to the ceiling, or to the frame of the machine, or in fact in any desired manner. To connect the bail and the suspension means 7 I prefer to utilize a contractile spring 8 which serves to quickly withdraw the device from the article when the handle is released by the operator, and also facilitates its use with various sizes of tires.

The lower end of the receptacle comprises a downwardly extending outlet portion 9 that is of tubular form. Preferably, this portion is removable in order that it may be easily cleaned, and at its lower end, external screw threads 10 are provided thereon, whereby it is designed to receive an internally threaded cap member 11. The cap 11 is provided with an opening 12 that is arranged in axial alignment with the outlet end of the tubular portion 9, and the edge of the opening is constructed to form an inclined seat 13. Normally this opening is closed by means of a ball valve, or other suitable closing medium, similar to that indicated at 14, whereby the fluid is prevented from escaping from the device. The valve 14 is designed to be unseated by contact with the wrapper, and to be moved into a position to close the outlet end of the tubular portion 9. In order to more readily center the ball relative to the outlet end of the portion 9 and to provide for a snug fit, a seat 15 is formed at said outlet end, the seating surface being formed in the curvature of the ball.

By virtue of the construction of the cap 11, a chamber is provided below the outlet end of the portion 9, of the requisite size to contain a predeterminable amount of the sealing material, and, as will be obvious, this amount may be varied by either screwing, or unscrewing, the cap to increase or diminish the size of the chamber. Hence, when the ball 14 is unseated from the opening 12, and seated against the shoulder 15, this predetermined quantity of the fluid is released

from the chamber through the opening 12, and the chamber is effectively cut off from the receptacle until the operator withdraws the device from contact with the wrapper. The ball will then again seat to seal the opening 12 and the chamber will again be charged, or filled with the same quantity of material previously released therefrom.

I have found that the pitch or resinous composition is highly effective and, therefore, desirable as a sealing material for use in conjunction with various types of wrappers, particularly those formed from a paper strip. Such material, however, is usually procured in lump form and requires heating in order that it may flow freely and be measured uniformly. Therefore, I utilize a heating coil that is preferably arranged around the depending outlet portion 9 in the manner illustrated in the drawing. By positioning the heating medium in this manner, the sealing material in the outlet portion is always of the same consistency, and the material in the receptacle is also sufficiently heated to insure a dependable flow into the outlet portion, and, consequently, into the chambered cap 11.

In utilizing this device, the operator, by means of the handle 5, advances the device against the pull of the coil spring 8 until the ball valve 14 engages the wrapper, whereupon a slight pressure may be exerted by the operator to actuate the ball in the manner previously described. The globule or load of the sealing material may be deposited in any position desired upon the wrapper by moving the device over the surface thereof. Upon releasing the handle, the coil spring acts to immediately withdraw the device, and the ball again assumes its normal position, whereupon the device is ready to repeat the dispensing operation, the load being measured as soon as the ball is withdrawn from contact with the wrapper.

Although I have shown and described my invention in detail, it is to be understood that this disclosure is merely illustrative, and is not to be construed as in any way limiting the scope or spirit of the invention, unless such limitation is indicated in the appended claims.

What I claim is:

1. A device for dispensing a sealing medium comprising, a main container, a relatively smaller container the containers being provided with an elongated communicating chamber and constructed for adjustment with respect to each other to vary the capacity of one of the containers, means operable to release the contents of one of the containers and to close one container from the other co-incidently with said releasing operation, and means engaging said communicating chamber for heating the medium in said containers.

2. A device for dispensing a sealing medium including, a container having an outlet opening, an auxiliary container constructed to provide a measuring chamber of variable capacity arranged in communication with the outlet opening, and a heating medium disposed intermediate the containers.

In witness whereof, I have hereunto signed my name.

MARK A. REPLOGLE.