

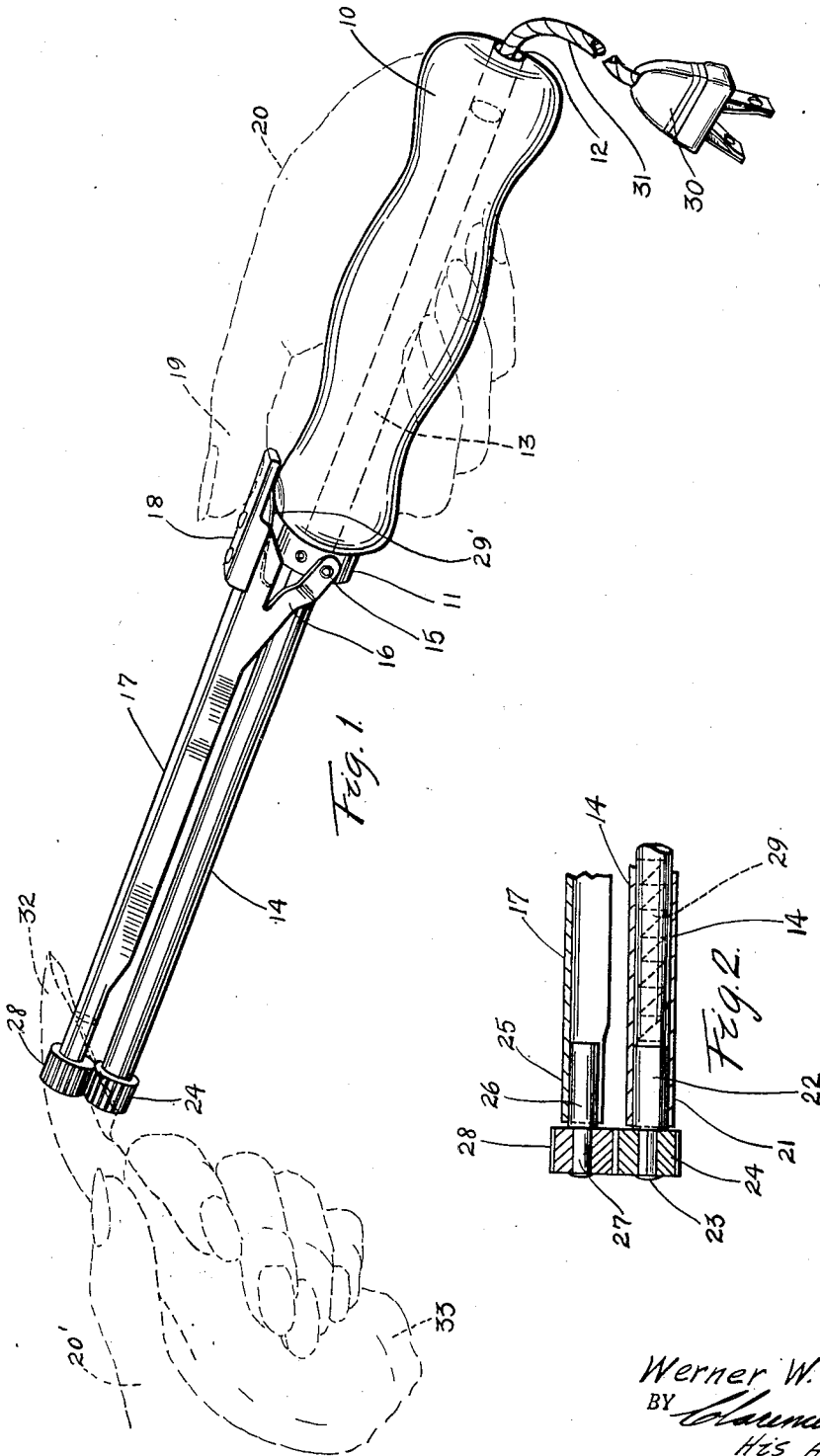
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SEALING DEVICE

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SEALING DEVICE

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1 Claim. (Cl. 219—21)

1

This invention relates to sealing devices. More particularly the invention has reference to a device for sealing together the open ends of a bag or package formed of Cellophane, wax paper, or the like.

In some forms of solidified viscose sheets, such as Cellophane, the composition from which the Cellophane is made is of an adhesive character to the extent that when two sheets of Cellophane are placed together, by contacting the sheets with a hot iron or the like the sheets will be adhesively secured together. The object of this invention is to provide a device which facilitates the sealing of the sheets together by means of utilizing the sheets for imparting rotation to the rotatable sealing members, and to reinforce the sealing operation by providing in the sealing members corrugated contacting surfaces so that during the heat-sealing process the sealing members, when the sheets are drawn therebetween, will rotate and form corrugations in the area being sealed, thereby strengthening the sealed area.

A still further object of the invention is the provision of a sealing device which permits the sealing device to be easily and expeditiously handled during the sealing operation and which permits the sheets of Cellophane or wax paper or like material to be sealed, to be easily brought into contact with the sealing device without any undue exertion upon the part of the operator or user.

A still further object of the invention is the provision of a sealing device which will result in a substantial saving of time consumed in the sealing operation.

Yet another and equally important object of the invention is the provision of a sealing device which comprises the minimum number of parts, with the result that the same can be assembled in the most expeditious manner and by reason thereof manufactured at an economical cost.

Another object of the invention is the provision of a sealing device which is compact in construction.

It is a final object of the invention to provide a sealing device having a handle portion which may be firmly held in the hand and from which extends a substantially rigid tube within which is arranged a heating element for heating the tube and a sealing roller carried thereby, and which sealing roller is complementary to and operatively related to a second sealing roller carried by an arm pivotally connected to an element of the handle portion in a manner such that when the handle portion is held in the hand the thumb thereof may rest upon an extension of the arm

2

for separating by pressure on such extension the sealing rollers from each other, whereby to permit the open end of a bag or package formed of Cellophane, wax paper, or like material, to be held by the user in his other hand, to be placed between the sealing rollers for operation thereupon when the sealing rollers are permitted to return into peripheral contact with respect to each other with the open end of the bag or package therebetween; the foregoing function and accomplishments being accomplished by a mechanism simple in construction and easy in operation.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings showing the preferred form of construction, and in which:

20 Fig. 1 is a perspective view of the sealing device embodying the invention;

Fig. 2 is a fragmentary sectional detail view of the sealing rollers and the mountings therefor.

The several objects of this invention are accomplished by the preferred form of construction shown in the accompanying drawings. In this connection, my improved sealing device comprises a handle portion 10 preferably formed of wood or other like material. This handle portion 10 has a reduced end portion on which is mounted a cap 11. Projecting into a longitudinal opening 12 formed in this handle portion is the end portion 13 of an arm 14 preferably tubular in formation for reasons hereinafter set forth.

Pivotally connected on the opposite sides of the cap 11, as at 15, are extended portions 16 of an arm 17 normally disposed in parallel relation with respect to the arm 14. This arm 17 is provided with a finger-piece 18 adapted to be engaged by the thumb 19 of a hand 20 when the handle portion 10 is firmly gripped in the hand 20, whereby pressure upon the finger-piece 18 will pivot the arm 17 against the action of a spring 29 to separate the arms 14 and 17 from their parallel relation with respect to each other as shown in Fig. 1, and for reasons hereinafter more fully set forth.

Frictionally fitting into the end portion 21 of the tubular arm 14 is a plug 22 having a stud shaft 23 formed integrally therewith and of a reduced diameter. Rotatably mounted upon this stud shaft 23 is a corrugating roller 24. The arm 17 is substantially U-shaped in cross section, and in its end portion 25 is frictionally projected a plug 26 and, like the plug 22, this plug 26 has an integral stud shaft 27 formed thereon on which is

rotatably mounted a corrugating roller 23 adapted for peripheral contact with the roller 24 when the arms 17 and 14 are in parallel relation with respect to each other, as shown in Figs. 1 and 2.

The plug 22 and the rollers 24 and 28, as are the stud shafts 23 and 27, are formed of heat-conducting material, the heat being transmitted to the corrugating rollers 24 and 28 through the stud shafts 23 and 27 and the plug 22 and arm 14. In the arm 14, in heat-conducting relation with respect thereto, is confined an electrical heating element 29 of any approved construction. This element 29 is adapted to be connected with a source of electric energy through the medium of a plug 30 carried by a conductor 31 and which conductor 31 passes through the opening 12 of the handle portion 10 for connection with the heating element 29. The heating element 29 may be connected with a D. C. or an A. C. source of supply.

In use, the plug 30 is connected with its source of electric energy to energize the heating element 29, which, when generating a heat to a predetermined degree, will substantially heat the tubular arm 14 and the plug 22, and this heat will be conducted, as before stated to the corrugating rollers 24 and 28.

The degree of heat should be such as to substantially fuse contacting portions of the material to be sealed together. To accomplish the sealing operation, after the corrugating rollers 24 and 28 have been heated to the required degree, the operator firmly grasps the handle portion 10 in his hand 20, disposing the thumb upon the finger-piece 18, exerting pressure upon the latter so as to pivot the arms 17 and 14 relative to each other and to separate the corrugating rollers 24 and 28 a substantial distance to permit the open end 32 of a package or bag 33 to be disposed between the rollers in a manner such that the operator, by the use of his other hand 20', while holding the handle portion 10 firmly in his hand 20, will be able to pass the open end 32 of the bag 33 between the rollers when in peripheral contact with respect to each other, with the bag end 32 therebetween. In this manner the heat will be transmitted to the end portion 32 of the bag 33 and will fuse the sheets thereof together. At the same time, the operator, by passing the open end 32 of the bag 33 between these rollers, will impress the sealed area with corrugations, thereby substantially reinforcing and strengthening the sealed area. The spring 29' should be of a sufficient tension to bear the peripheral con-

tacting surfaces of the corrugating rollers 24 and 28 together so as to substantially corrugate the area to be sealed during the sealing operation on that area.

The heating element has not been described in detail for the reason that any standard or approved heating element may be used, it being preferably one which will best serve the purpose and be so constructed as to be free from any possible injury to the user.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claim.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

A sealing device comprising a handle portion, a tubular arm carried by and extending from said handle portion, a plug in one end of said tubular arm and having a stud shaft formed thereon, a corrugating and sealing roller carried by said stud shaft, a second arm pivotally carried by said handle portion and normally disposed in parallel relation with respect to said tubular arm, a plug in one end of said second arm and having a stud shaft, a corrugating and sealing roller carried by said last-named stud shaft in complementary relationship with respect to the first-named roller, a heating element arranged in the tubular arm in heat-transmitting relation with respect to said tubular arm and with respect to the plug carried thereby, and spring means for biasing said arms in parallel relation with respect to each other with said rollers in peripheral contact with material passed between said rollers.

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