Oct. 13, 1959 A. MÜLLER ET AL 2,908,123

METHOD FOR PRODUCING A BAG-SHAPED PACKING AND DEVICE FOR CARRYING OUT THIS METHOD

Filed Nov. 8, 1955 4 Sheets-Sheet 1

FIG.1

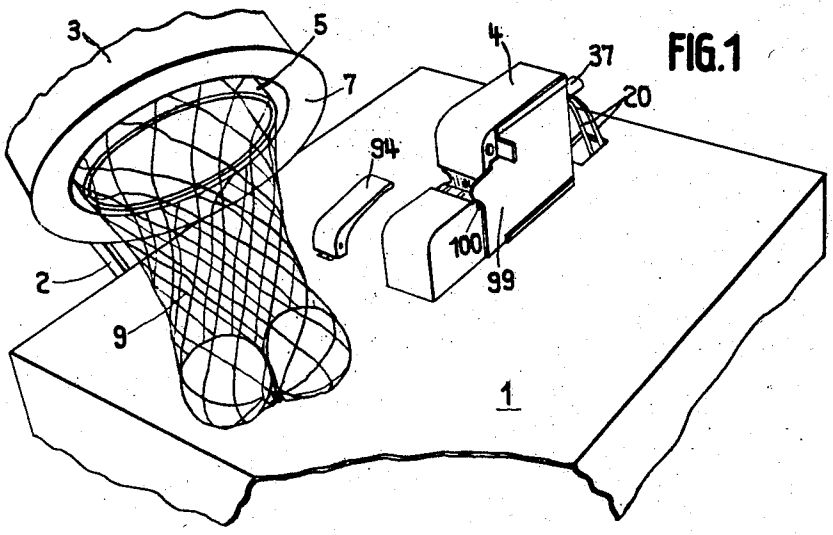


FIG.2

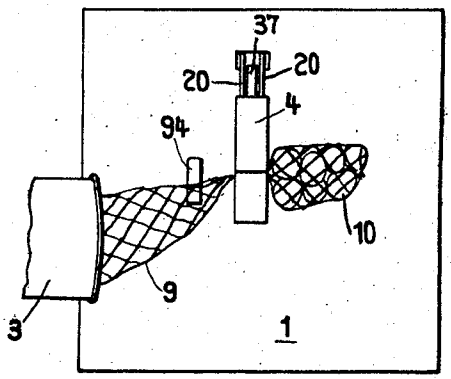


FIG.5

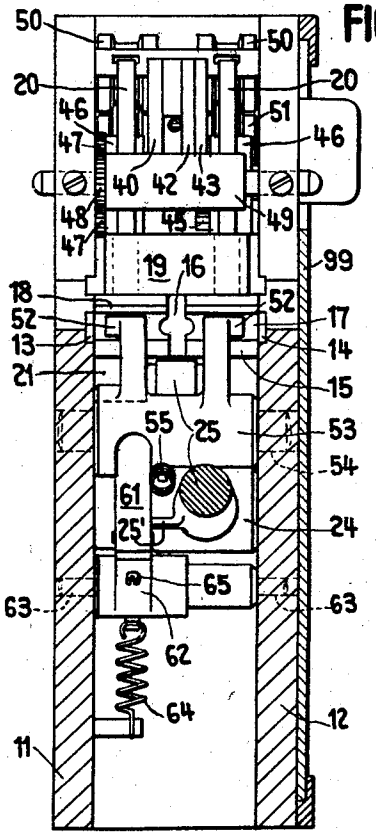
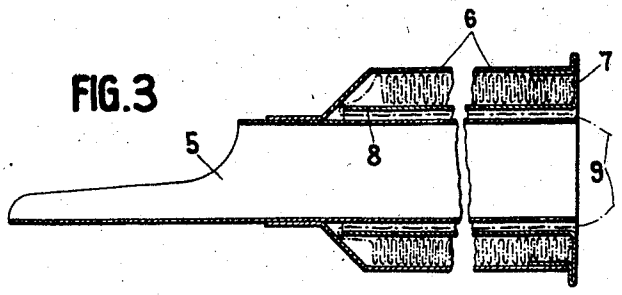


FIG.3



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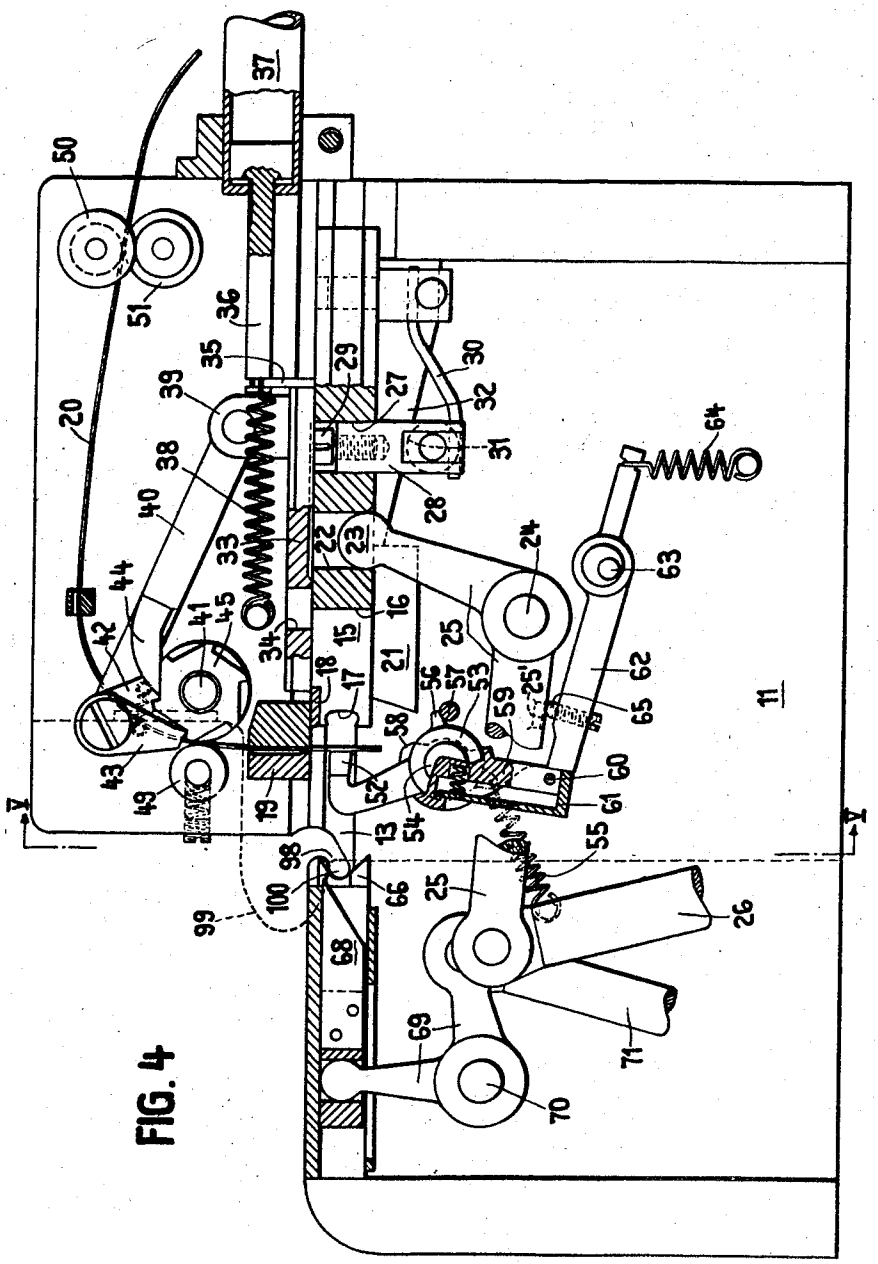


FIG. 4

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METHOD FOR PRODUCING A BAG-SHAPED PACKING AND DEVICE FOR CARRYING OUT THIS METHOD

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FIG.6

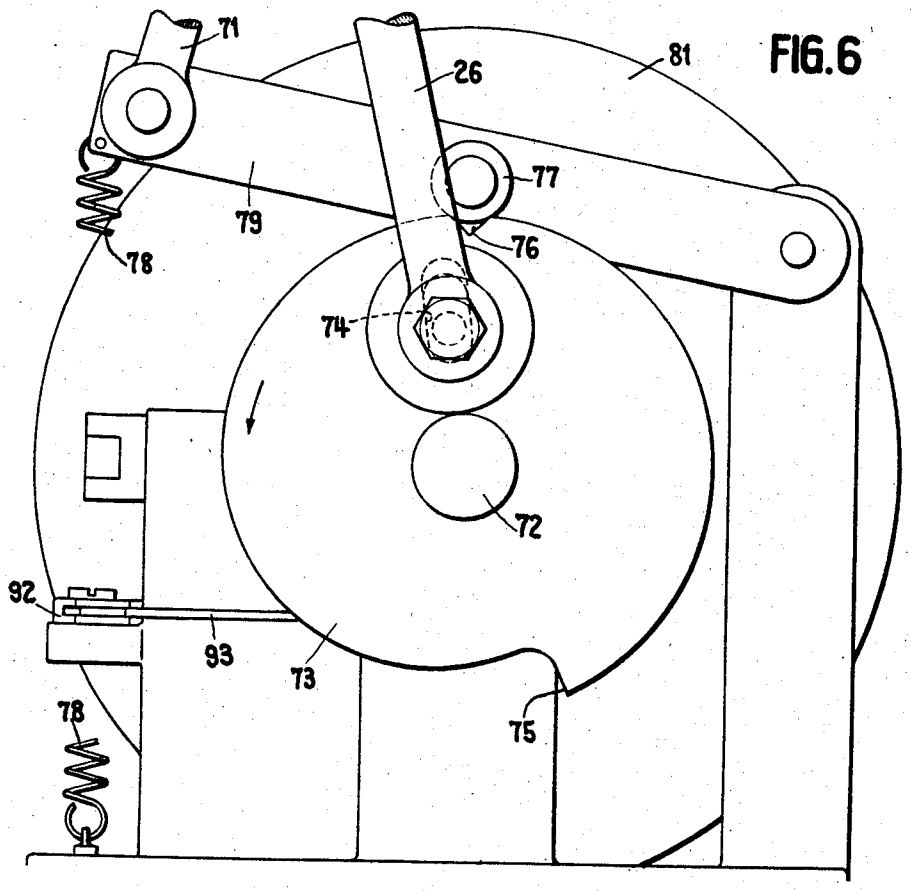


FIG.10

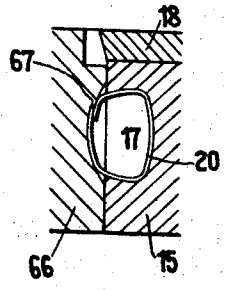


FIG.9

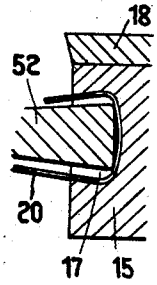
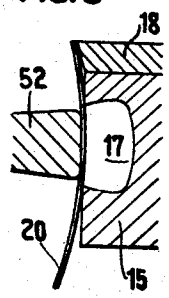


FIG.8



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METHOD FOR PRODUCING A BAG-SHAPED PACKING AND DEVICE FOR CARRYING OUT THIS METHOD

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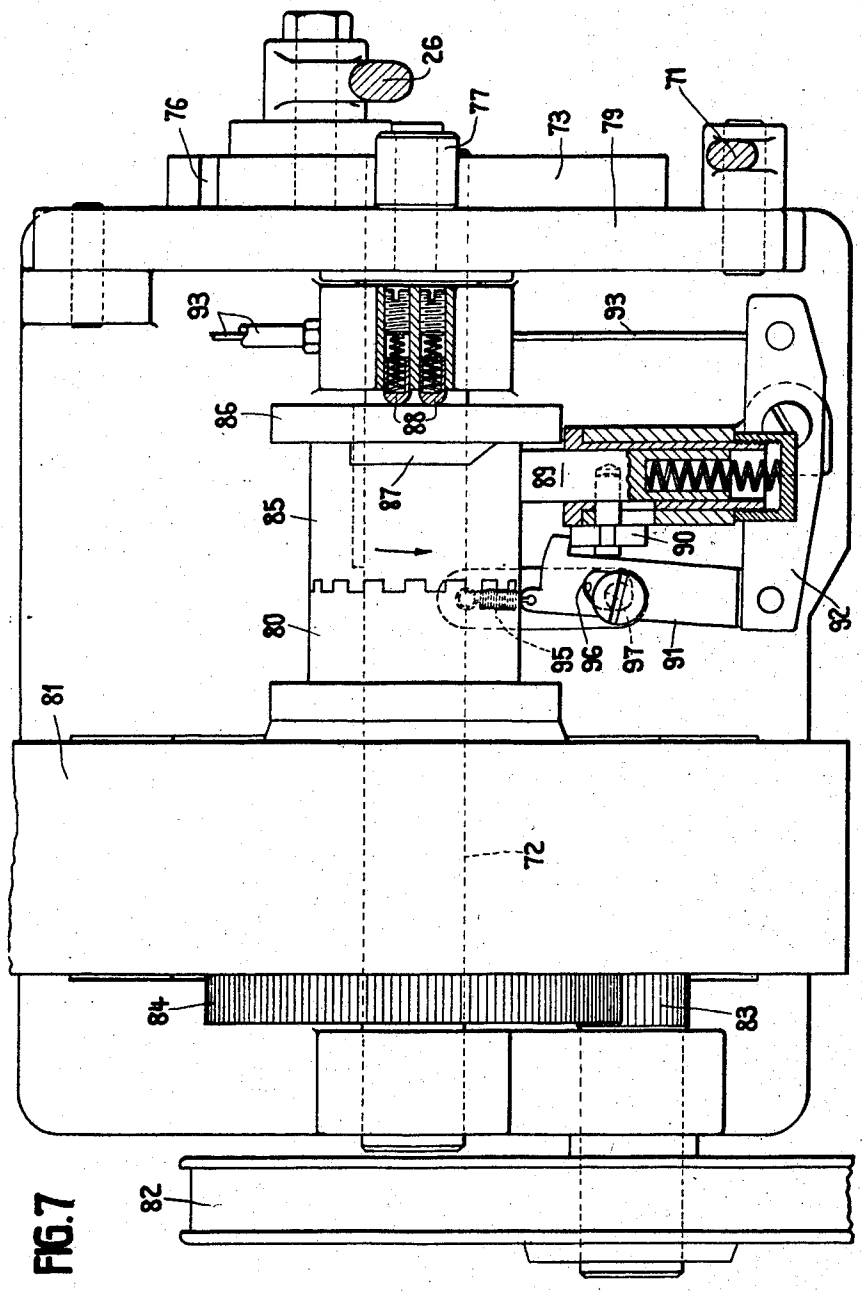


FIG. 7

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United States Patent Office 2,908,123 Patented Oct. 13, 1959

2,908,123

METHOD FOR PRODUCING A BAG-SHAPED PACKING AND DEVICE FOR CARRYING OUT THIS METHOD

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Application November 8, 1955, Serial No. 545,671

Claims priority, application Switzerland January 11, 1955

13 Claims. (Cl. 53—29)

This invention relates to a method for producing a bag-shaped packing, including filling the goods to be packed into a hose of packing material closed at one end, whereupon the hose containing the goods is laced together in two places and the bag containing the goods is separated from the hose between the laced portions thereof.

Methods of this kind for producing a packing are known, wherein the said hose is continuously woven or braided or the hose is continuously shaped from a paper web which is stuck or sewed together and whereby the goods to be packed are introduced into the interior of the hose immediately before the hose is closed at its side. It is also known to provide a supply of a hose-shaped packing material round a filling tube for the goods to be packed, to pull out a length of the packing hose required for producing one packing, to close the fore end of the hose of packing material, to fill the desired quantity of goods into the closed hose and then to lace the hose together behind the goods and to disconnect this formed packing from the supply of packing hose.

With these known methods for producing a bag-shaped packing it was particularly difficult to sufficiently rapidly lace the hose together where the same is to be closed.

It is one object of this invention to provide inexpensive means for rapidly lacing the hose together where required. The method according to this invention is broadly characterized in that the hose is laced together by means of clamps produced from tapes immediately before being clamped round the said hose. Preferably the clamps may be cut from the tapes, preshaped and clamped round the hose by a continuous working motion of one part of a device for producing the said packing.

The packing method according to this invention is preferably used where a hose-shaped net is used for packing fruits or similar piece goods, because the net may easily be compressed to a thin cord or string in the places where it is to be laced or clamped together so that relatively small clamps and consequently small pressing tools, relatively small pressures for closing the clamps and relatively small dimensions of the device are obtained. The net hose is particularly suitable for the said method in which a supply of the packing material laid round a filling opening or tube is pulled out in lengths required for each packing.

It was found that the shape of the filling opening or tube is of particular importance especially when the said net hose is used as a packing material, in order that the net hose may easily and properly be filled and that a packing of suitable shape is obtained. Therefore it is a further object of this invention to provide a suitable shape of the said filling opening of filling tube. According to this invention at least the opening of the filling tube facing the said closed end of the hose is of oblong or elliptical cross section. With this arrangement the hose which is closed at its free end is widely spread out by the weight of fruits or other objects filled into the same so that following fruits are allowed to roll into the hose in at least two parallel ranges thereby forming a flat and well shaped packing. If the well known circular filling opening or filling tube is used the hose is pulled lengthwise by the weight of the first fruits filled into the same and all the fruits subsequently filled into the hose will be aligned in one range so that each packing is to be brought into suitable shape before being closed.

One form of the method according to this invention is described in the following by way of example with reference to the drawings illustrating one example of the device for producing a packing in accordance with this invention.

Fig. 1 shows a perspective view of the device,

Fig. 2 is a top view of the packing device,

Fig. 3 is a vertical axial section of the filling members of the packing device,

Fig. 4 is a side view partially in section of the apparatus for producing the clamps from tapes and for clamping such clamps round the packing hose,

Fig. 5 is a section along line V—V in Fig. 4,

Fig. 6 is a side view of the driving means of the apparatus shown in Figs. 4 and 5,

Fig. 7 is a top view of the driving coupling of the packing device partially in section and

Figs. 8 to 10 illustrate different stages of the production of the clamps.

The packing device illustrated has a table 1 on which a filling device 3 is supported by means of a carrier 2 and on which table is fixed an apparatus 4 for producing clamps from tapes and for clamping such clamps round the packing hose where required. The filling device shown in axial section in Fig. 3 has a filling tube 5 of elliptical cross section, a protecting tube 6 fixed to the filling tube 5 and a tube 8 of elliptical cross section having a flange 7. The tube 8 may be inserted between tubes 5 and 6 from the right in Fig. 3 or from below in Fig. 1 and is held between tubes 5 and 6 by friction. A supply of for instance several hundred meters or yards of a hose-shaped net 9 is slid onto the tube 8, the rear end of this net hose 9 being led round the rear end of tube 8 and between tubes 8 and 5 out of the filling device as shown in Fig. 3. As shown in Fig. 1 the filling tube 5 is slightly inclined. The fore end of the net hose 9 has been closed at its free end in a manner described later on so that the hose 9 forms a bag closed at its fore end and into which fruits or similar piece goods may be filled through the filling tube 5. As already pointed out the elliptical shape of the filling tube is of particular importance for the obtention of a flat packing 10 in which the fruits or other piece goods are arranged in at least two parallel ranges as shown in Fig. 2.

When the desired quantity of fruits or similar piece goods is filled into the net hose the net is tightly compressed behind the fruits and the thin cord thereby formed of the net is introduced into the apparatus 4 in which the cord is laced together in two places by clamping two clamps produced from tapes round the cord formed from the hose and disconnected between the laced portions thereof. In this way a bag- or sausage-like packing is produced which is closed at both ends whereas the free end of the net hose has again been closed and thereby prepared for the next filling and packing operation as described.

The apparatus for producing the tape clamps is illustrated in Figs. 4 to 10. The working mechanism of this apparatus is held between plates 11 and 12 (Fig. 5). A slide 15 is guided in slots 13 and 14 of the plates 11 and 12 respectively, the slide 15 having at its fore side a relieved slot 17 constituting a displaceable matrix which is subdivided in two portions by a recess 16. A cutting knife 18 of hard metal is provided at the upper fore edge of the slide 15, the knife 18 being adapted for coopera-

tion with the lower cutting edge of a cutting head **19**. Tapes **20** are fed into the apparatus through the cutting head **19**. A control block **21** is fixed on the lower face of the slide **15**. The head **23** of a lever **25** pivoted at **24** in the plates **11** and **12** enters into a slit **22** of the slide **15**. The lever **25** is connected to a crank rod **26**. A pin **28** having an adjustable control screw **29** is slidably held in a bore **27** of the slide **15**. The pin **28** is under control of a spring **30** tending to push the pin **28** upwards. The spring **30** is fixed at the rear end of the slide **15** and is displaced with the same. The pin **28** has laterally projecting rollers **31** adapted to run onto wedges **32** fixed on the plates **11** and **12** respectively in order to displace the pin **28** downwards against the pressure of spring **30**.

A plate **33** displaceable in the same direction as the slide **15** is provided on top of the slide **15**. The plate **33** has a bore **34** into which the control screw **29** of the pin **28** may engage as described later on. By means of a plate **35** the plate **33** is connected with the piston rod **36** of an air brake **37** and with one end of a spring **38** anchored on the plates **11** and **12**. By means of a lug **39** the plate **33** is interconnected with a lever **40** of which the other end is pivotally connected with a lever pivoted on a shaft **41** and with a spring loaded stepping lever **43**. The lever **40** has a projection **44** adapted for cooperation with a stepping wheel **45** driven by the stepping lever **43**. The stepping wheel **45** is fixed on shaft **41** together with two advancing or feeding rollers **46** and a toothed wheel **47**. Toothed wheel **47** gears with a pinion **48** assembled with another advancing or feeding roller **49** which is pressed against the rollers **46** by means of springs. The tapes **20** are thus held between the advancing or feeding rollers **46** and **49** and are advanced by these rollers by a determined amount whenever the stepping wheel **45** is advanced by one tooth.

The tapes **20** fed into the apparatus are guided each between two rollers **50** and **51** having circumferential ribs and slots engaging each other.

Two stamps **52** adapted to cooperate with the matrix slots **17** of the slide **15** are pivoted by means of a hub **53** on a shaft **54** held between the plates **11** and **12**. The stamps **52** may be turned clockwise in Fig. 4 under the pull of a spring **55**, this rotating movement being limited by a fixed stop pin **57** against which a nose **56** of the hub **53** will abut on the clockwise rotation of the stamps **52** and hub **53**. The hub **53** has a control cam **58** adapted for cooperation with the control block **21** of the slide **15** as described later on. A lever **59** is fixed on the hub **53** and a spring loaded control member **61** is pivoted on this lever by means of a pin **60**. The lever **59** and its control member **61** abut against a latch lever **62** when the parts of the apparatus are in the position shown in Fig. 4, the latch lever **62** being pivoted on a shaft having an excentric pivot pin **63**. A spring **64** is attached to the latch lever **62** tending to turn this lever clockwise in Fig. 4 until an adjustable screw **65** of the latch lever abuts against the control face **25'** of the lever **25**.

Two fixed matrices **66** are provided opposite the displaceable matrices **17** of the slide **15**, the actual shape of the matrices **66** being illustrated in Fig. 10. The working face of matrices **66** is characterized by an offset **67** serving a purpose later described. A knife **68** having preferably a toothed cutting edge is slideably arranged in a slit between the matrices **66**. The head of a driving lever **69** pivoted on a shaft **70** and connected to a crank rod **71** engages a slit in the head of the knife **68**.

Figs. 6 and 7 of the drawing illustrate the driving mechanism of the clamp producing apparatus. This driving mechanism has a cam disc **73** fixed on a shaft **72**, the crank rod **26** being connected to this disc **73** by means of an attachment which may be displaced in a radial slit **74** of the disc **73** and may be fixed in a desired radial position. The edge of disc **73** has a cam surface having an offset **75** and a notch **76**. A roller **77** engages the cam surface of the disc **73**, the roller **77** being attached to a control lever **79** connected to the rod **71** and loaded at its free end by a strong pulling spring **78**.

The one half **80** of a claw coupling and a fly wheel **81** are turnably but not axially displaceably mounted on the shaft **72**, the fly wheel and the coupling portion **80** being continuously driven by a motor not shown over a belt pulley **82** and toothed wheels **83** and **84** during operation of the packing machine. A second half **85** of the claw coupling is mounted on the shaft **72** on which it may axially be displaced but not turned. The coupling part **85** has a flange **86** with a wedge **87**. Two spring loaded pins **88** are inserted in the right hand bearing of the shaft **72**, pins **88** pressing against the flange **86** of the coupling part **85** thereby tending to shift this part **85** into the position shown (Fig. 7) in which the coupling parts **80** and **85** are engaged. A spring loaded control pin **89** is applied against the cylindrical outer surface of the coupling half **85**, the control pin **89** projecting into the path of the said wedge **87**. The control pin **89** is assembled with a plate **90** and the nose of a lever **91** engages the rear edge of plate **90**. The lever **91** is articulated on a rocker **92** interconnected with a release key **94** situated on the table **1** by means of a Bowden control cable, the rocker **92** being turned anticlockwise in Fig. 7 on operation of the release key **94**, whereby the lever **91** is pulled downwards (Fig. 7) against the pull of a spring **95**. The lever **91** has a slit or guideway **96** by means of which the lever **91** is guided on a fixed pin **97**.

The parts of the packing device shown in Figures 6 and 7 are fixed on the underside of the plate of the table **1** below the clamp producing apparatus **4**.

Slots **98** are provided in the plates **11** and **12** above the fixed matrices **66**. The slot **98** of the plate **12** is covered by a plate **99** displaceably mounted at the outside of plate **12** and held in the position illustrated by a spring (not shown) so that a small opening **100** remains between plate **99** and matrix **66** (Fig. 4).

The illustrated device operates as follows:

In the drawing all the parts of the packing apparatus except the coupling half **85** are shown in their rest or zero position. As already pointed out the net hose is now compressed to a cord or string as thin as possible behind the packing. This string or cord is inserted between the plate **99** and the upper face of the fixed matrices **66**, whereby the plate **99** is slightly pushed back (to the right in Fig. 4) to allow insertion of the cord into the slots **98** of plates **11** and **12**. After insertion of the cord the plate **99** returns into the position shown in Fig. 4 under spring action and retains the cord formed of the net hose in the opening **100** that is in the proper position for lacing the cord together subsequently. If required to pull may now be exerted onto the hose portion opposite the packing (at the left of the apparatus **4** in Fig. 2) in order to tightly stretch the packing, whereafter the release key **94** is actuated.

As pointed out above the coupling half **85** is not shown in its rest or zero position in Fig. 7 but this part will rotate on from the position shown in the direction of the arrow in Fig. 7 until the control wedge **87** abuts against the control pin **89** whereby the coupling half **85** is shifted to the right in Fig. 7 and disengaged from the coupling half **80**. For this disengaged position of the coupling **80**, **85** the cam disc **73** comes at rest in the position shown in Fig. 6, whereby the control roller **77** catches in the notch **76** of this disc.

On operation of the release key **94** as set out above the rocker **92** is turned anticlockwise thereby shifting the lever **91**, the plate **90** and the control pin **89** downwards in Fig. 7 until the control pin **89** releases the control wedge **87** of the coupling half **85** which latter is engaged with the coupling half **80** under the pressure of

the pins 88. Immediately after the release of the control wedge 87 the lever 91 which is slightly turned anticlockwise during its downward motion due to its guiding slit 96 releases the control plate 90 and therewith the control pin 89 so that the pin 89 again engages the outer cylindrical surface of the control wedge 87 and later on the cylindrical surface of the coupling half 85 but cannot thereby revoke the engagement of the coupling 80, 85.

On engagement of the coupling 80, 85 the cam disc 73 is driven in the direction of the arrow in Fig. 6. The control roller 77 has already passed the full rise of the cam face whereby the knife 68 has been returned over lever 79, rod 71 and lever 69 into the retracted position shown in Fig. 4. On the other hand the crank rod 26 begins to rotate the lever 25 anticlockwise so that the slide 15 is shifted to the left in Fig. 4 until the hard metal knife 18 hits the tapes 20 which have already been advanced. The tape pieces projecting downwards from the cutting head 19 are now cut off and Fig. 8 illustrate the relative position of the matrix slots 17 of the slide 15 and of the stamps 52 immediately after cutting of the tapes 20. The tape pieces cut off are already slightly pressed between the matrices 17 and the stamps 52 so that such pieces cannot possibly fall down. The matrices 17 are now further advanced to the left (Fig. 4) whereas the stamps 52 are held in the position shown because the lever 59 or more exactly its spring loaded control member 61 still engages the latch lever 62. This condition persists until the tape pieces are completely pressed into the matrices 17 as shown in Fig. 9. Due to the relieved shape of the slots 17 the so deformed and preshaped clamps will not fall out of the matrices. The mechanism is so designed that at this moment the lever 25 has lowered the latch lever 62 to such an extent that the lever 62 releases the control member 61 of the lever 59. Small inaccuracies in the adjustment of the parts are without importance due to the spring suspension of the control member 61. Very close adjustment of the working position of the stamps 52 may be obtained by rotation of the shaft of the latch lever 62. When the control member 61 of the lever 59 is released as set out above the hub 53 and the parts connected to the same are free to turn anticlockwise, this rotation being effected by the control block 21 of the slide 15, which engages the control cam 58 of the hub 53 when the slide 15 further advances, whereby the stamps 52 are turned out of the path of the slide 15.

The matrices 17 with the tape clamps preshaped as shown in Fig. 9 are further advanced towards the fixed matrices 66 where the longer, lower portion of the preshaped tape pieces is bent until it abuts against the offset 67 of the matrices whereas the upper portion of the preshaped clamp is bent and overlapped over the lower portion thereof. Before engaging the fixed matrices 66 both ends of the preshaped tape pieces have enclosed the cord formed from the net hose and the tape clamps illustrated in Fig. 9 are now tightly clamped round the net cord thereby lacing the same together in two places.

At the end of the working motions required for producing the tape clamps and clamping the same round the net hose the cam disc 73 has turned to a position in which the control roller 77 reaches the offset 75 so that the lever 79 is turned anticlockwise under the pull of the spring 78, whereby the knife 68 is rapidly advanced to the right in Fig. 4 in order to cut off the cord formed from the net hose between the clamps previously applied to the same.

On further rotation of the cam disc 73 the control roller 77 is lifted again and the knife 68 is retracted. At the same time the slide 15 is returned into the zero position illustrated in Fig. 4 whereby the parts 53 and 62 are returned to their respective zero positions by springs 55 and 64 respectively.

At the end of the working motion of the slide 15 the screw 29 has engaged the bore 34 of the plate 33 whereby the plate 33 has been coupled with the slide 15 and is moved with the same when the slide 15 is returned into its rest position as set out above, that is the plate 33 will be moved to the right in Fig. 4 the springs 38 being put under stress. During this returning movement of the slide 15 the rollers 31 of the pin 25 will run onto the wedges 32 thereby pulling the pin 28 and the screw 29 downwards until the screw 29 is retracted from the bore 43 so that the plate 33 is disengaged from the slide 15 and is pulled back into the position illustrated under the pull of springs 38. During the movement of the plate 33 to the right the stepping lever 43 has been set back by one tooth on the stepping wheel 45 so that the stepping wheel 45 is advanced by one step, when the plate 33 returns into its rest position, whereby the advancing rotation is limited by the projection 44 of the lever 40. Thereby the feeding rollers 46 and over gears 47, 48 the feeding roller 49 are turned by a predetermined angle and the tapes 20 are advanced by a predetermined length. The brake 37 provides for a reduction of the feeding acceleration without which a regular feeding length of the tapes 20 cannot be obtained although the feeding rollers 46 and 49 are roughened for instance grooved. Buffers (not shown) may be provided on the cutting head 19 for taking up the impact of the returning plate 33.

On further rotation of the claw coupling 80, 85 the control wedge 87 again engages the control pin 89 and disengages the coupling so that the cam disc 73 stops in the position shown in Fig. 6. The packing device has thus returned to its initial position. In the meantime the ends of the net closed by means of the tape clamps are removed from the clamping apparatus 4 and another prepared packing may now be finished as described by another working cycle of the apparatus 4.

In order not to initiate a second or third operating cycle of the apparatus 4 when the release key 94 is continuously held in its operating position, control of the pin 89 by the lever 91 is so designed that engagement of the coupling 80, 85 is allowed but once independently of the period during which the release key 94 is depressed.

While the invention has been described and illustrated with reference to a specific embodiment thereof, it will be understood that other embodiments may be resorted to without departing from the invention. Therefore, the form of the invention set out above should be considered as illustrative and not as limiting the scope of the following claims.

What we claim is:

1. A device for semiautomatic production of a bag-shaped packing, comprising a table, a filling tube above the said table having an inclination towards the table, a delivery opening of oblong cross section having its longer axis parallel to the said table at the lower end directed towards the said table of the said filling tube, a supply of a hose shaped packing material surrounding the said filling tube and projecting from the filling tube towards the said table, a lacing apparatus on the said table laterally spaced from the said delivery opening of the filling tube, the said lacing apparatus comprising two metal tapes, cutting means for cutting strips from the said metal tapes, clamp forming means for producing clamps from the said strips, supporting means for supporting a hose portion contracted to a thin cord in horizontal position, pressure means for pressing the said clamps in spaced relationship round the said contracted hose portion supported in the said supporting means and separating means for cutting the said hose portion held in the said supporting means.

2. A device for semiautomatic production of a bag-shaped packing, comprising a table, a filling tube above

the said table and inclined towards the table, a delivery opening at the lower end directed towards the table of the said filling tube, a supply of a hose-shaped packing material surrounding the said filling tube and projecting from the filling tube towards the said table, a lacing apparatus on the said table laterally spaced to from the said delivery opening of the filling tube, the said lacing apparatus comprising two metal tapes, cutting means for cutting strips from the said metal tapes, clamp forming means for producing clamps from the said strips, supporting means for supporting a hose portion contracted to a thin cord, pressure means for pressing the said clamps in spaced relationship round the said contracted hose portion held in the said supporting means and separating means for cutting the said hose portion held in the said supporting means.

3. A device according to claim 2, having a part comprising the said cutting means, clamp shaping means and pressure means, drive means for the said part operative for imparting to the said part a continuous working stroke, the said cutting means, clamp shaping means and pressure means being successively operative for cutting the said strips, shaping the said clamps and pressing them round the said contracted hose portion during the said working stroke of the part.

4. A device according to claim 2, comprising a supply of a hose shaped net serving as a packing material.

5. A device according to claim 2, comprising a ring space surrounding the said filling tube, a supply of the said hose-shaped packing material inserted into the said ring space, a ring-shaped opening at the end opposite the delivery opening of the filling tube in the said ring space and a free space between the said filling tube and the said ring space, the said hose-shaped packing material being fed from the said ring space through the said ring-shaped opening and the said space between the filling tube and the ring space to the delivery opening of the filling tube.

6. A device according to claim 3, the said part being a matrice having clamp shaping means and a cutting edge, a stamp having a first operating position in the path of the said clamp shaping means of the matrice and a second operating position outside the path of the clamp shaping means, stop means for supporting the said stamp in its first operating position, means operatively connected with the said matrice for releasing the said stop means and means operatively connected with the said matrice for removing the said stamp from the first operating position into the said second operating position, a first range of the working stroke of the said matrice for which the said stamp is supported in its first operating position and during which the said strips are cut off by the said cutting edge and the strips are formed to clamps between the stationary stamp and the matrice advancing towards it, and a second range of the working stroke of the said matrice for which the stamp is displaced into its second operating position and the matrice advances towards the said contracted hose portion for pressing the clamps round the same.

7. A device according to claim 6, the said matrice having a working surface adapted for cooperation with the said stamp for shaping the said clamps, the said working surface being so formed that the shaped tape clamps are supported in the same without further auxiliary supporting means.

8. A device according to claim 7, the said matrice having a relieved slot constituting the said working surface.

9. A device according to claim 3, the said drive means comprising a coupling, hand operated engaging means for the said coupling and automatically operated disengaging means for the said coupling, the said disengaging means being operative for disengaging the said coupling in a predetermined angular position, an operating movement for the said engaging means and a latch mechanism between the said disengaging means and the said engaging means for common displacement of the said engaging and disengaging means, the said latch mechanism being operative for a first range of the operating movement of the said engaging means and inoperative for a last range of the operating movement of the engaging means, an operating position of the said disengaging means and resetting means continuously operative for bringing the disengaging means into the said operating position, the disengaging means being removed from their operating position thereby allowing engagement of the coupling by the said common displacement of the engaging and disengaging means during the said first range of the operating movement of the engaging means and the disengaging means being returned to their operating position by the said resetting means during the said second range of the operating movement of the engaging means for disengaging the coupling at the said predetermined angular position whenever the said engaging means are fully operated or not operated.

10. A device according to claim 3, comprising feeding means for stepwise advancing the said metal tapes, a return stroke for the said part and a one way stepping device for the said feeding means, the said one way stepping device being operated by the return stroke of the said part.

11. A device for producing a bag-shaped packing, comprising a filling tube, a delivery opening at one end of the filling tube having an oblong cross section, a supply of a hose-shaped packing material surrounding the said filling tube and projecting from the filling tube at the end comprising the said delivery opening, lacing means for closing the said hose-shaped packing material in at least two places and cutting means for separating portions of the said hose-shaped packing material.

12. A method for semiautomatic production of a bag-shaped packing, including providing a table and an inclined filling tube above this table, pulling a hose-shaped net along the outside of the said filling tube towards the said table, closing the end of the said hose-shaped net projecting from the said filling tube towards the said table, filling a quantity of a piece good through the said inclined filling tube into the said closed end of the hose-shaped net, shaping and stretching by hand the said hose-shaped net round the said quantity of a piece good thereby forming an individual packing and contracting the said hose-shaped net behind the packed quantity while the hose-shaped net and the goods contained therein are supported in a substantially horizontal position on the said table, providing a supporting structure and inserting the contracted portion of the hose-shaped net into the said supporting structure wherein it is supported in a fixed position while maintaining the packing in its form by substantially horizontal pull on the said contracted portion of the hose-shaped net and still supporting the packing in substantially horizontal position on the said table, producing two clamps from tapes and lacing the said contracted portion together in two places spaced from each other and severing the contracted portion of the hose-shaped net between the said clamps, lacing and severing being effected while the said contracted portion of the hose-shaped net is manually maintained under pull in the said fixed position.

13. A method for producing a bag-shaped packing of piece-goods from a supply of hose-shaped net, including providing a table, closing the end of the said supply of hose-shaped net and filling a quantity of the said piece-goods into the said closed end of the net, shaping the said net round the said quantity of piece goods by stretching the net by hand thereby forming an individual packing and contracting the said hose-shaped net behind the packed quantity while the net and the goods contained therein are supported in a substantially horizontal position on the said table, producing two clamps and lacing the said contracted portion together

in two places spaced from each other and severing the contracted portion of the hose-shaped net between the said clamps thereby severing a finished packing from the said supply of hose-shaped net and closing the one end of the remanining supply of hose-shaped net, lacing and severing being effected with the said contracted portion and the portion containing the goods of the hose-shaped net in stretched condition but supported on the said table in substantially horizontal position.

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