

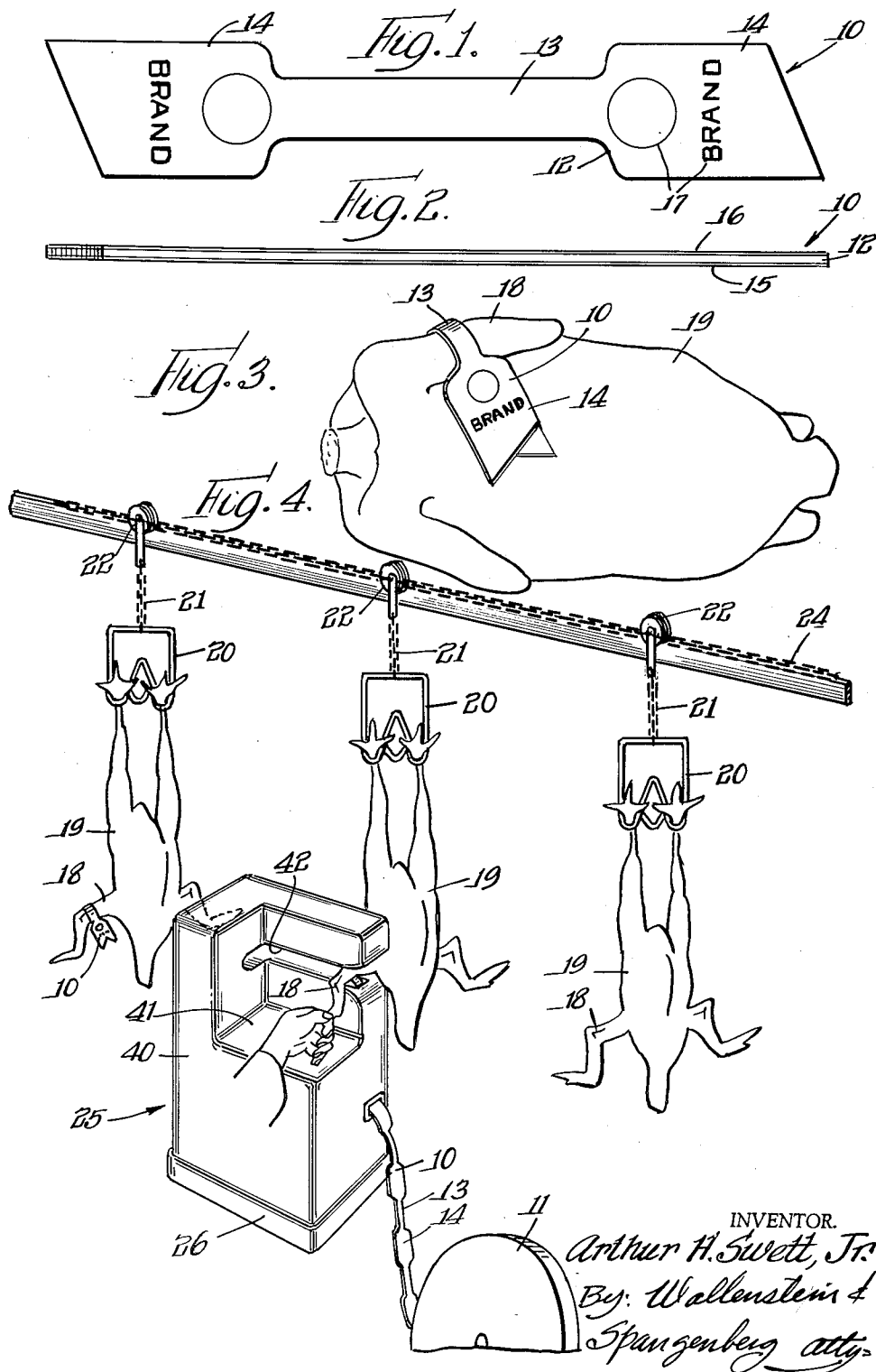
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MARKING FOWL OR THE LIKE

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MARKING FOWL OR THE LIKE

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2 Claims. (Cl. 40—21)

This invention is directed to marking and identifying fowl or the like, such as dressed poultry. In recent years an increasing amount of fowl has been dressed for market in central processing plants operating with constantly moving overhead conveyor lines. These conveyor lines carry shackles from which the birds are suspended either by the feet or by the neck as they are carried through automatic machines for feather removal and the like and past operators who perform manual operations on them.

Very often it is desired to mark the fowl in some fashion, so as to identify it by brand name or to certify that it has passed U.S. Government inspection or the like. At the present time, this is accomplished either by a printed paper tag which is secured to the bird by means of a metal clip or a string, or by a metal clip having printed copy directly thereon. These methods have the disadvantage that they must be attached by hand which is time consuming and expensive. They have the further disadvantage that they are sometimes dislodged. The tags themselves are also relatively expensive and difficult to handle, particularly in a mass processing operation.

This invention and the principal object thereof are directed to marking fowl or the like in such a manner as to overcome the aforementioned difficulties. In accordance with this invention, a tough, moisture-resistant, elongated paper like label strip, having a heat sealable thermoplastic coating on one side thereof, is utilized for marking the fowl or the like. The intermediate portion of the label strip encircles a limb of the fowl, such as the wing or the leg, and the end portions of the label strip are face abutted and heat sealed together for firmly securing the label to the fowl. The exposed side of the label is preferably provided with appropriate printed copy for marking and identification purposes.

To dislodge such a label so secured to the fowl is virtually impossible and, as a result, foolproof marking of the fowl is assured. Further, when the label is removed, it must be torn or destroyed, so that it cannot be reused in an unauthorized manner. A further advantage of the instant label is that it is considerably less expensive than the currently used marking tags, in that no metal or string is required, and paper stock of materially reduced thickness may be employed with superior results. A further cost saving is also realized in that the instant label is adapted to be produced by methods inherently much faster and more economical than those involved in manufacturing string tags, or tags with metal clip attaching devices, or metal clips carrying printed copy thereon.

The attaching of the instant label strips to the fowl by heat sealing the same is simple and foolproof and is considerably faster and less expensive than by the present practice of fastening tags to the fowl by strings or metal clips or the like. The heat sealing of the instant labels to the limbs of the fowl may be readily accomplished automatically, and this is of particular importance in connection with mass processing of the fowl, since considerable saving in labor expense is thereby afforded.

Preferably, the intermediate portion of the label strip is narrow so that it may snugly encircle and fit the limb of the fowl and prevent dislodgment, and the end portions of the label strip, which are heat sealed together, are wide so as to provide a large heat seal area for strength, and a large exposed area for the printed marking and identification copy. The wide and narrow portions of

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the label strips also have utility in automatically feeding and registering the label strips and the web constituting such label strips in an apparatus for automatically applying the labels to the fowl or the like.

The label may be applied to a limb of the fowl by releasably suspending the label strip at its end portions, moving and engaging the limb of the fowl with the intermediate portion of the label strip so as to encircle the intermediate portion of the label strip about the limb of the fowl and to release the label strip and face about the heat sealable thermoplastic coated end portions of the label strip, and heat sealing together the face abutted end portions of the label strip to secure the label to the limb of the fowl.

An object of this invention is to provide a label, having the foregoing features, characteristics and advantages, for marking fowl or the like.

The method of quantity marking fowl or the like, which are suspended by shackles from a continuously moving conveyor for mass processing, and an apparatus for automatically so marking the fowl or the like, are also disclosed in, and claimed in, application Ser. No. 793,713, filed February 17, 1959, by Edward C. Marshall.

Other objects and advantages of this invention will become apparent to those skilled in the art upon reference to the accompanying specification, claims and drawings in which:

FIG. 1 is a top plan view of the label strip utilized in accordance with this invention;

FIG. 2 is a side elevational view of the label strip;

FIG. 3 is a view of a fowl, such as a completely dressed chicken, having the label applied to the limb of the chicken, such as the wing;

FIG. 4 is a perspective view of fowl or the like which are suspended by shackles from a continuously moving conveyor for mass processing thereof, along with an apparatus which may be utilized for automatically marking the fowl as they continuously pass thereby.

Referring first to FIGS. 1 to 4, the label strip of this invention is generally designated at 10. The label strip 10 is a paper like strip, and it may be severed from the end of a paper like web 11, which may be handled in roll form. The paper like web is provided with alternate narrow portions 13 and wide portions 14, and the label strips 10 are severed through the wide portions from the web 11, so as to provide the label strip 10 with a narrow intermediate portion 13 and wide end portions 14. The paper like label strip, shown at 12 in FIG. 2, is preferably made from paper, although plastic films and the like may be used, and such are contemplated in the term "paper like label strip." In the case of paper, it may be given a wet-strength impregnation in any conventional manner. One side of the paper like strip 12 is provided with a relatively thin layer 15 of heat sealable thermoplastic material, this layer being coated thereon in conventional fashion. At least the end portions of the label strip are so coated and, preferably, the entire side of the label strip is coated, inasmuch as it is less expensive to do so. The heat sealable thermoplastic coating 15 is for the purpose of imparting heat sealing ability to the label strip. The other side of the label strip may be provided with suitable printed copy 17 for marking and identification purposes, and that side of the label strip may also be given a moisture-barrier treatment 16 in usual fashion to prevent curling of the label strip due to moisture absorption.

As shown in FIGS. 3 and 4, the narrow intermediate portion 13 of the label strip is encircled about a limb 18, such as a wing, of a chicken 19, and the wide end portions 14 of the label strip are face abutted with the thermoplastic coating thereon adjacent to each other and heat sealed together for firmly securing the label strip

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to the fowl. One manner of accomplishing this attachment of the label strip to the wing of the fowl is shown in more detail in FIG. 4. There the label strip 10 is suspended adjacent its ends and the limb 13 of the fowl is moved and engaged with the narrow intermediate portion 13 of the label strip. As a result, the narrow intermediate portion 13 of the label strip is encircled about the limb 18, and the wide thermoplastic coated end portions 14 are face abutted and heat sealed together. While the application and the heat sealing of the label strip to the limb of the fowl may be manually accomplished, it is admirably suited for automatic accomplishment, as by the marking apparatus disclosed herein, and such automatic application of the labels to the fowl finds particular utility in connection with mass processing of the fowl. In such mass processing, the fowl or poultry 19 is suspended by shackles 20, as shown in FIG. 4, the shackles 20 being conventional and being carried by chains 21 which, in turn, are carried by rollers 22 operating in a conventional channel 23 which, in turn, is provided with a moving chain 24 for continuously moving the fowl. When the chickens are so suspended in the shackles 20 by their feet, their wings flop downwardly so as to make them conveniently accessible for the application of the label strips thereto.

The label strips may be automatically applied to the wings of the chickens by a marking apparatus, generally designated at 25 in FIG. 4, which is arranged in the path of the wings of the poultry being conveyed by the continuously operating conveyor.

The marking apparatus 25 includes a base 26 supporting the marking equipment arranged within a casing or housing 40. Adjacent its top, the housing 40 is provided with a transverse slot 42 through which the poultry wings 18 pass, and it is also provided with a large offset 41 to make space for facilitating the guiding of the chicken wings with respect to the marking apparatus. The label strips 13, 14 are fed from a roll of such strips through the marking apparatus by means of rolls which cooperate with the wide portions 14 of the label strips for accurately automatically feeding and registering the label strips. The end label strip is severed and vertically releasably suspended at its ends across the transverse slot 42, and, as a wing 18 passes through the slot, it is encircled by the label strip. A pair of heated platens adjacent the slot 42 heat seal the ends of the label strip together for firmly securing the label strip to the wing, as illustrated in FIG. 3.

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While for purposes of illustration, one form of the label and the labeled fowl of this invention have been disclosed and one manner of applying the label to the fowl has been disclosed, other forms and manners may become apparent to those skilled in the art upon reference of this disclosure and, therefore, this invention should be limited only by the scope of the appended claims.

I claim as my invention:

1. A label for marking fowl or the like comprising, an elongated paper strip having an intermediate portion for encircling a limb of the fowl, and end portions for extending in face abutting relation away from the limb of the fowl encircled by the intermediate portion, a heat sealable thermoplastic coating on at least the end portions of the side of the strip which face abut each other for heat sealing the strip in place on the limb of the fowl, printed copy on the other side of the strip which is exposed to view when the strip is applied to the limb of the fowl, and a moisture-barrier coating on the printed side of the strip to prevent moisture absorption and curling.

2. A label for marking fowl or the like comprising, an elongated paper strip having a narrow intermediate portion for encircling a limb of the fowl, and wide end portions for extending in face abutting relation away from the limb of the fowl encircled by the narrow intermediate portion, a heat sealable thermoplastic coating on at least the wide end portions of the side of the strip which face abut each other for heat sealing the strip in place on the limb of the fowl, printed copy on at least the wide end portions of the other side of the strip which is exposed to view when the strip is applied to the limb of the fowl, and a moisture-barrier coating on the printed side of the strip to prevent moisture absorption and curling.

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