Jan. 31, 1967 J. D. MILLER 3,301,370

DEVICE FOR HOT STAMPING INDICIA ON WEBS

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FIG. 1.

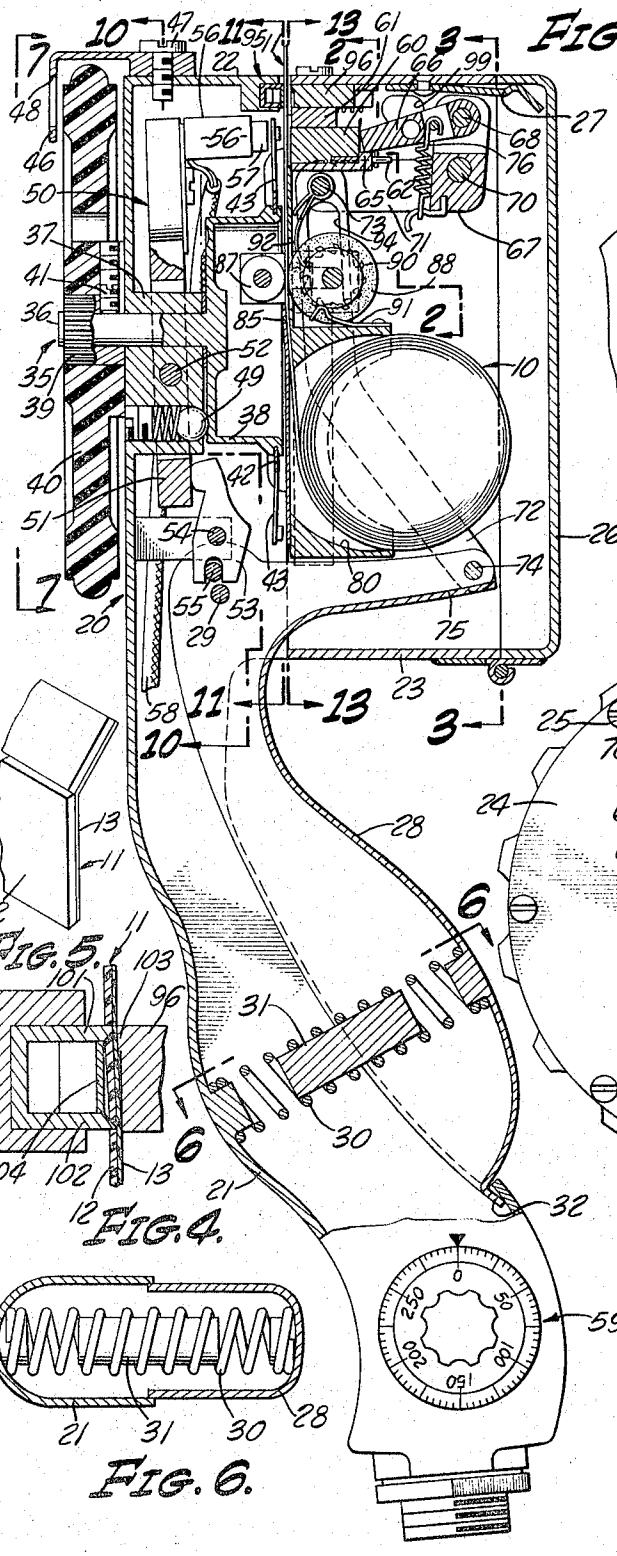


FIG. 2.

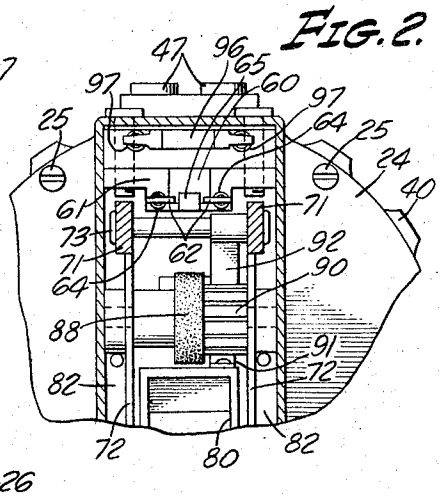


FIG. 3.

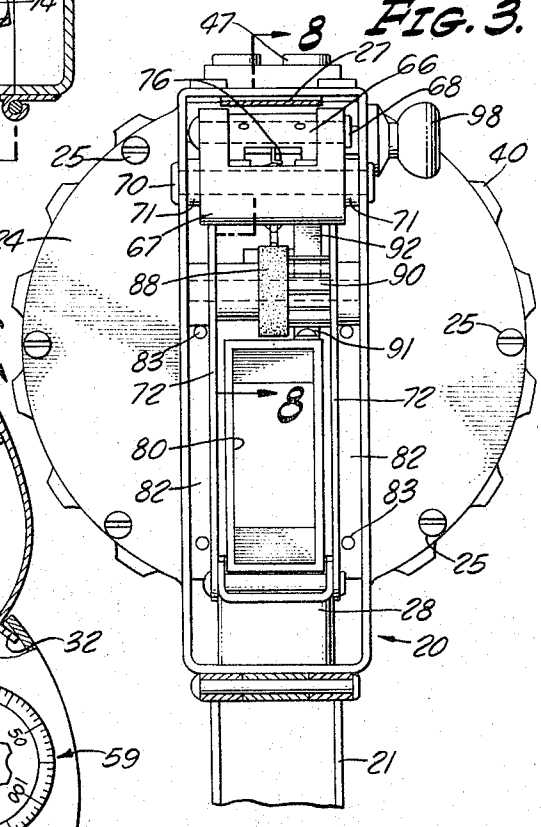


FIG. 5.

FIG. 4.

FIG. 6.

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FIG. 7.

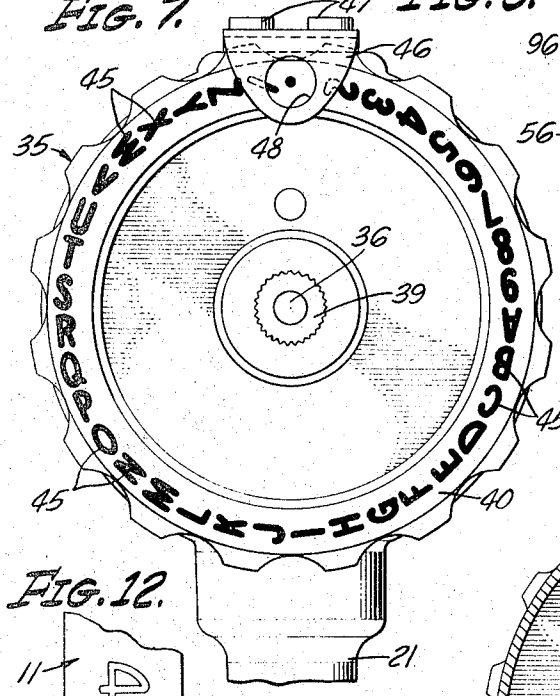


FIG. 8.

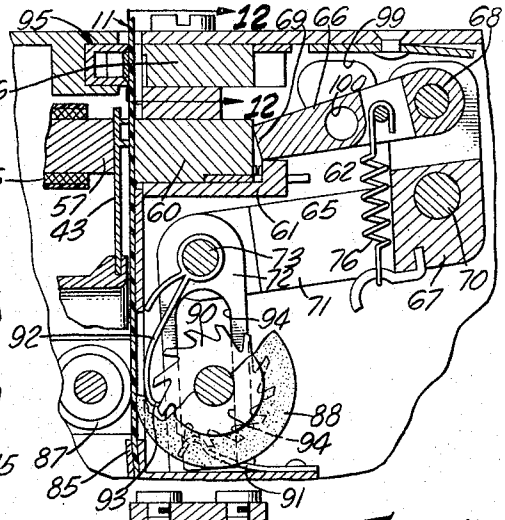


FIG. 10.

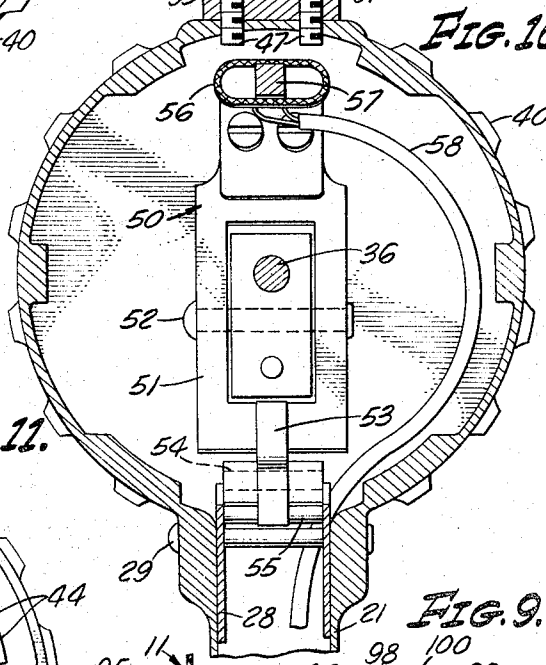


FIG. 12.

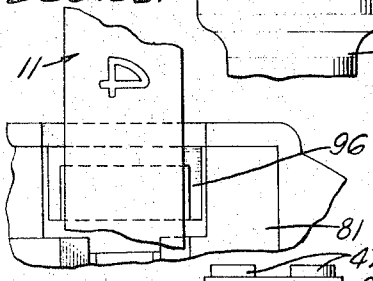


FIG. 11.

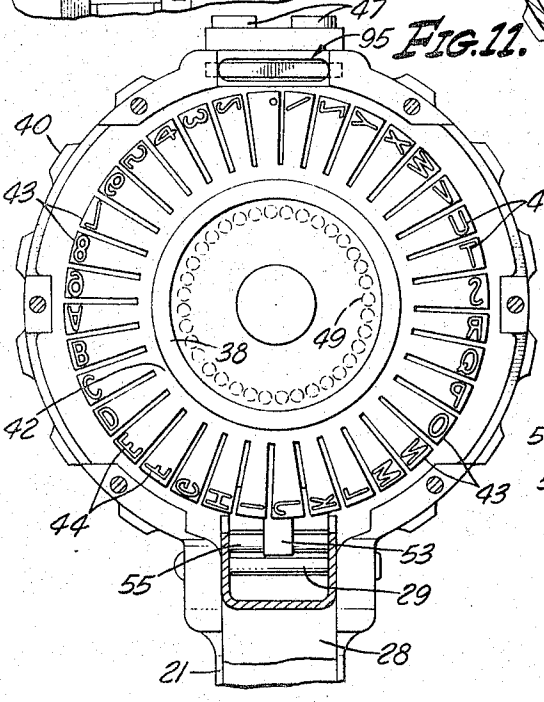
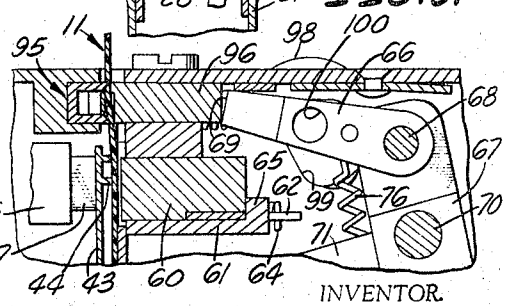


FIG. 9.



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FIG. 13.

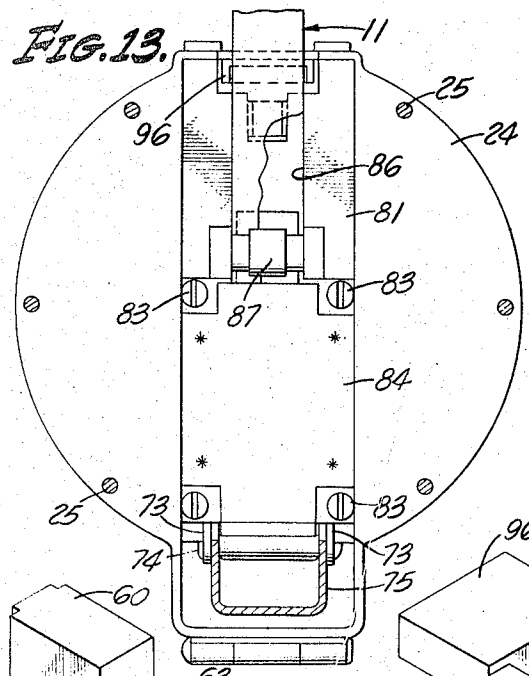
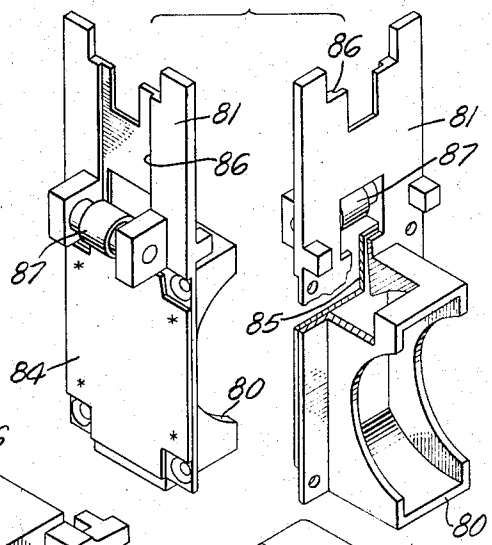
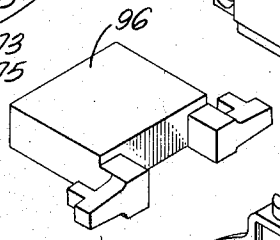


FIG. 14.





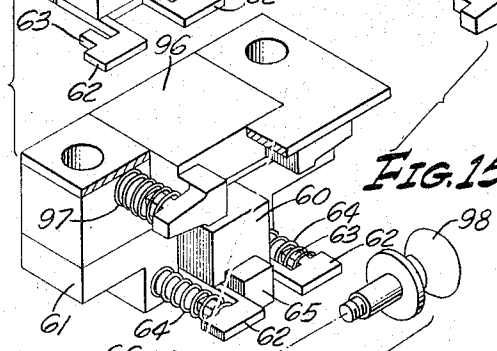


FIG. 15.

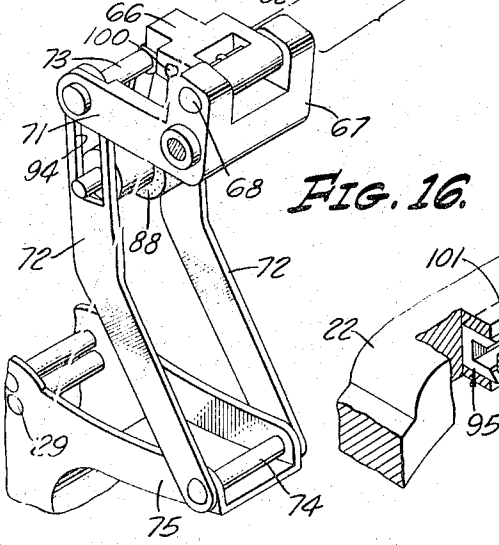


FIG. 16.

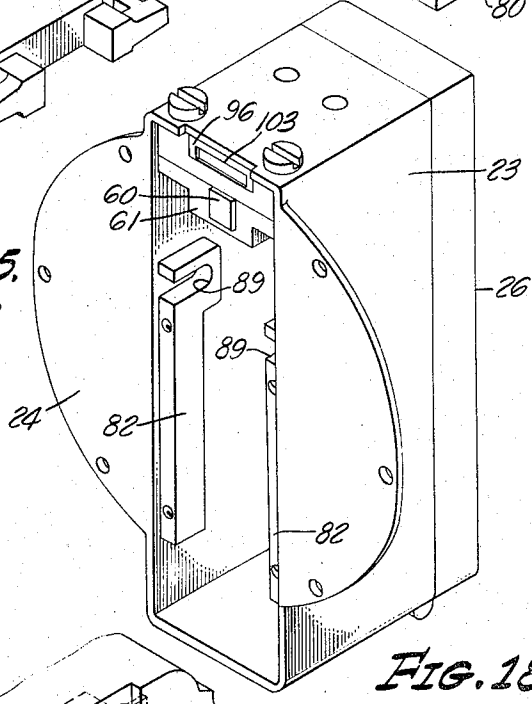


FIG. 18.

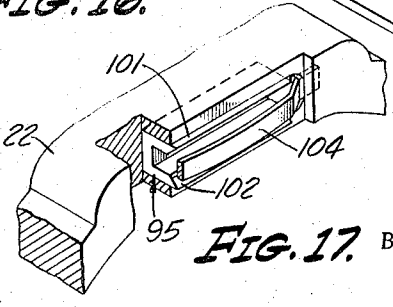


FIG. 17.

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3,301,370

DEVICE FOR HOT STAMPING INDICIA ON WEBS

John Dawson Miller, 4400 N. Temple City Blvd., El Monte, Calif. 91731

Filed Mar. 18, 1965, Ser. No. 440,700
5 Claims. (Cl. 197—6.7)

This invention relates to a device for hot stamping selected indicia on a continuous web and, in particular, is directed to a portable device which is operable to rapidly select individual indicia and successively impose the selected indicia on a continuous heat sensitve web.

There are a number of circumstances in which it is desired to apply a label, tag or writing on some article. When the same information is to be applied to a number of articles or cost is no object, then appropriate labels or tags may be printed, stamped, etched or engraved with the desired information. However, there are many circumstances in which the information on the label will vary from article to article, or the information cannot be determined prior to the need for applying the label to the article, or the cost does not permit preparation of the limited number of labels needed, or there are other similar objections to prepared labels. Under such circumstances the need has arisen for devices which are operable to selectively print the special information on raw label stock.

To this end, there are numerous commercial devices adapted for successively embossing letters and numbers on a continuous strip of plastic label stock. The devices include male and female dies containing the alphabet and/or numbers between which the label stock passes and the application of pressure causes the desired embossing of each individual character. The dies may be successively dialed to the appropriate letter or number for each intermittent movement of the label stock to produce the entire label. This plastic label stock is provided in various colors and the embossing causes intense localized stretching of the colored plastic to produce a white letter or number. However, this embossed stretching may not be completely permanent and, therefore, over a period of time the relaxation of the stretching may return the color thereby partially or completely obliterating the letter or number. It is a further inherent deficiency in this label system that the plastic stock must be relatively thick and stiff to produce the white characters upon embossing and yet the thickness and stiffness of the label may render it unsuitable for adhering to an irregular or flexible surface.

There are a number of materials susceptible to hot stamping of letters, numerals and like indicia for forming labels which are superior to the cold embossed labels in many respects. In conventional hot stamping the appropriate letter and numeral type is set in a block which is heated and the entire label is hot stamped in a manner similar to printing but without printer's ink. One conventional label material employs a base stock of one color with an overlying ribbon stock of the desired color of the lettering and numbering. The hot stamping from the ribbon stock side causes the lettering and numbering to be heat fused or imprinted on the base stock. Another recently developed tape employs a thin opaque plastic material of one color with an underlay of another color which may have an adhesive back covered by the conventional removable strip to protect the adhesive. Hot stamping of indicia from the opaque material side of the tape causes that material to lose its opacity and become transparent in accordance with the stamped indicia thereby revealing the contrasting colored underlay. However, heretofore conventional devices and machines are not capable of separately and successively hot stamping individual letters, numbers and other indicia on these heat sensitive label stocks whereby special labels can be made to fulfill the many desirable uses mentioned above.

Accordingly, it is a principal object of this invention to provide a device for hot stamping individually and successively selected indicia on an appropriate heat sensitive webbing.

Another object of this invention is to provide a novel form of hot stamping device wherein all of the necessary lettering and numbering indicia are provided in spaced relation around the periphery of a single wheel, whereby the wheel may be successively rotated to a position with the appropriate indicia adjacent the heat sensitive webbing at successive locations on the web to permanently impose the desired information on the webbing. A more detailed object is to provide such an arrangement wherein the wheel includes a multiplicity of spaced fingers about the periphery with each finger supporting a single indicia whereby that finger is flexed away from its normal position toward the webbing during hot stamping of the webbing with that indicia thereby preventing inadvertent interference or overlapping from adjacent indicia.

Still another object of this invention is to provide a portable hot stamping device adapted to contain a continuous roll of heat sensitive webbing with means for feeding the webbing between relatively movable anvils wherein a member positioned between the anvils contains the desired indicia and is heated at least during closing of the anvils to impose the indicia on the webbing.

A further object of this invention is to provide a novel form of portable hot stamping device wherein individual indicia may be successively selected and imposed on a continuous heat sensitive webbing by each manual actuation of the device and means may be selectively moved for severing a completed label from the continuous web.

Other and more detailed objects, advantages and features of this invention will appear from the following description and the accompanying drawings, wherein:

FIGURE 1 is a central sectional elevation view of the portable hot stamping device of this invention shown in an unactuated condition.

FIGURE 2 is a fragmentary sectional bottom plan view of a portion of the device taken substantially on the line **2—2** in FIGURE 1.

FIGURE 3 is a fragmentary sectional bottom plan view of the device taken substantially on the line **3—3** in FIGURE 1.

FIGURE 4 is an enlarged sectional elevation of the web severing means of the device in the actuated position.

FIGURE 5 is a perspective view of the severed end of the label stock as severed by the arrangement of FIGURE 4 whereby the adhesive protective backing is not severed to facilitate removal.

FIGURE 6 is a sectional view illustrating the trigger return spring taken substantially on the line **6—6** in FIGURE 1.

FIGURE 7 is a top elevation view illustrating the indicia selection means and taken substantially on the line **7—7** in FIGURE 1.

FIGURE 8 is an enlarged fragmentary sectional elevation taken substantially on the line **8—8** in FIGURE 3 and illustrating the device in the actuated position for imprinting indicia on the webbing.

FIGURE 9 is an enlarged fragmentary sectional elevation similar to FIGURE 8 but illustrating the components in the appropriate position for severing the webbing.

FIGURE 10 is a sectional bottom plan view taken substantially on the line **10—10** in FIGURE 1.

FIGURE 11 is a sectional bottom plan view taken substantially on the line **11—11** in FIGURE 1.

FIGURE 12 is a fragmentary plan view of the imprinted web dispensed by the device taken substantially on the line 12—12 in FIGURE 8.

FIGURE 13 is a sectional top plan view taken on the line 13—13 in FIGURE 1 which is co-extensive with line 11—11 but taking the view in the opposite direction.

FIGURE 14 is a composite perspective view of both the top and bottom sides of the web retaining and feeding guide.

FIGURE 15 is a composite perspective view of the assembled anvils for heat stamping and web severing with those anvils also shown separately for clear understanding of their construction.

FIGURE 16 is an exploded perspective view of the linkage mechanism for feeding the webbing and operating the anvils of FIGURE 15.

FIGURE 17 is a fragmentary perspective view of the double severing knife shown in sectional elevation in FIGURE 4.

FIGURE 18 is a perspective view of the lower portion of the device with the components of FIGURES 14 and 16 omitted for clarity of illustration of this portion.

Referring now to FIGURE 1 the device of this invention includes an enclosed housing, generally designated 20 having a handle portion 21 adapted to be gripped by the operator. The upper portion 22 of the housing is cylindrical whereas the lower portion 23 is generally rectangular and connected to the upper portion by a flange plate 24 and screws 25. A cap 26 is hinged to the bottom end of housing portion 23 for permitting ready access to the interior of the housing for replacing the roll 10 of heat sensitive label webbing 11. A spring 27 resiliently retains cap 26 in the closed position.

A trigger member 28 is positioned in handle 21 and is pivotally mounted in the housing by pin 29. The trigger 28 is urged to the outward or released position by compression type coil spring 30 positioned within and extending between the handle portion 21 and trigger 28. A rod 31 is supported within spring 30 to prevent buckling of the spring upon compression. The trigger 28 is arrested in this released position by a lip 32 engaging the shank of the handle 21.

Means are provided in the cylindrical portion 22 of the housing for permitting successive selection of individual indicia for hot stamping the webbing and, as shown in the drawings, these means may include the wheel assembly, generally designated 35, rotatably mounted in the housing. Wheel assembly 35 includes a shaft 36 rotatably mounted in a boss portion 37 of the housing and having a hollow hub 38 positioned interiorly of the housing. A splined bushing 39 serves to connect the exterior dial wheel 40 to shaft 36 and is locked in place by set screw 41. An annular and flat indicia wheel 42 is mounted near the lower extremity of hub 38. The peripheral portion of wheel 42 is radially slotted to provide a multiplicity of outwardly extending fingers 43 that are slightly spaced from each other and independent. Each finger 43 is provided with a separate raised indicium 44 and, as best shown in FIGURE 11, these indicia are a "mirror image" of the desired letter, number or the like to be imposed on the web. The indicia should be raised from the surface of the wheel an appropriate amount for cleanly heat stamping the particular heat sensitive web and in this regard as indicia height of .020 inch or slightly more than has been found satisfactory for most materials. The surface of the indicia should be flat with rather square edges for producing clean sharp letters, numbers and other indicia. Further, wheel 42 is preferably of a thin material which is highly heat conductive and yet withstands the heat such as Phosphor bronze. The wheel 42 may be perfectly flat but preferably the fingers 43 are inclined slightly upwardly to accomplish a spacing of the indicia from the web 11 as shown in FIGURE 1, whereby an individual finger 43 may be flexed to a perfectly radial condition during the heat stamping as shown in FIGURE 8. This permits the surface of the raised indicia 44 to be parallel with the surface of the fingers 43 for simplicity of manufacture rather than requiring a slight angle therebetween if the fingers 43 were flexed to a position unparallel with the web 11 during the hot stamping.

The dial wheel 40 is provided with visible indicia 45 around its periphery corresponding to the indicia 44 on the wheel 42. An indicator 46 is fixedly mounted on housing 20 by screws 47 and includes an aperture 48 for observing a single indicium 45 at one time. The wheels 40 and 42 are fixedly connected and appropriately oriented whereby the indicium 45 appearing within aperture 48 corresponds to the indicium 44 positioned for hot stamping the tape 11 in the manner hereinafter described. Thus the operator can visually select the desired indicium by rotating wheel 40 to the appropriate position. A locating ball detent mechanism 49 comprising a spring loaded ball mounted in housing boss 37 for engaging circumferentially spaced spherical dimples in hub 38 serves to precisely and consistently locate the wheel assembly 35 for each of the indicia 44.

Means are provided for imposing heat and pressure on individual fingers 43 of wheel 42 and, as shown in the drawings, these means may include the hammer assembly generally designated 50. Hammer assembly 50 includes a box shaped yoke 51 encircling boss portion 37 of the housing and pivotally mounted thereon by pin 52. A lever 53 is pivotally mounted on the housing by pin 54 and engages the yoke 51. A slot in lever 53 engages a pin 55 mounted on trigger member 28 whereby pivoting of trigger member 28 about its pivotal mounting pin 29 causes pivoting of lever 53 to in turn pivot the yoke 51. At the other end of yoke 51 an electric heating element 56 is mounted and extends downwardly toward the flat wheel 42. The lower end of element 56 is provided with a square anvil portion 57 of an appropriate size for engaging a single finger 43 to depress such finger without moving the adjacent fingers 43. The heater element 56 may be any conventional type of electrically powered device operated and controlled through wire 58 and an adjustable temperature control 59 mounted in handle 21. The linkage of hammer assembly 50 is such that full depression of trigger 28 will cause the anvil 57 to engage and depress a finger 43 an adequate distance and with adequate force to impart a heat stamping of the indicia 44 on the web 11.

In order to adequately support the web 11 during the hot stamping and yet provide an abundance of clearance between the web and the indicia 44 on wheel 42 between stampings, a support anvil 60 is provided opposite the heated anvil 57 and is movable toward the heated anvil during the hot stamping operation. Referring particularly to FIGURES 8 and 15, the anvil 60 is slidably mounted in a block 61 for movement perpendicularly toward and away from the flat indicia wheel 42. A pair of lateral arms 62 at the base of anvil 60 provided upwardly projecting tabs 63 for retaining a pair of coil springs 64 extending between block 61 and anvil 60 for urging the anvil downwardly. A stop 65 on block 61 limits the downward travel of anvil 60. A lever 66 is pivotally mounted on a bell crank member 67 by a pin 68 and has an upper end 69 adapted to engage the bottom of anvil 60 to cause the vertical movement of the anvil. Bell crank member 67 is pivotally mounted to the housing portion 23 by pin 70. A bifurcated upwardly extending arm portion 71 of bell crank member 67 is pivotally connected to a pair of spaced links 72 by a pin 73. Links 72 are pivotally connected by a pin 74 to an extension portion 75 of the trigger member 28. Referring particularly to FIGURE 1, by this arrangement the depression of trigger 28 causes leftward movement of links 72 to pivot the bell crank member 67 counterclockwise to urge the lever 66 upwardly thereby forcing the anvil 60 upwardly into engagement with the web 11 for supporting the web during the hot stamping. This upward

movement of anvil **60** occurs concurrently with the aforedescribed downward movement of the heated anvil **57**. A coil tension spring **76** is connected between the bell crank member **67** and the lever **66** to continually urge the lever **66** toward a position beneath anvil **60**.

The roll **10** of heat sensitive webbing **11** is loosely supported within the rectangular housing portion **23** by a hollow cradle member **80**. The cradle member **80** is mounted on side bars **82** by screws **83** and has an integral plate portion **81** extending forwardly between the anvils **57** and **60**. A thin plate **84** is mounted over the cradle **80** and has a forwardly extending portion **85** bent upwardly to provide a small space for threading the web **11** out of the cradle onto the top of plate portion **81**. A wide groove **86** is provided in the upper surface of plate portion **81** for guiding the web **11**. A roller **87** is mounted above plate portion **81** for engaging the upper surface of the web **11** as a backup for advancing the web. A rubber roller **88** is rotatably and slidably mounted in slots **89** in the bars **82**. An aperture is provided in plate portion **81** for permitting the wheel **88** to frictionally engage the bottom surface of web **11** directly opposite the location of roller **87**. A ratchet wheel **90** is mounted on the shaft of roller **88** for rotation with the roller. A leaf spring **91** resiliently engages the notches between the teeth of the ratchet wheel to positively locate the ratchet wheel in the desired position and against inadvertent movement. The wheel **88** is rotated to advance the web **11** by means of a spring latch element **92** mounted on pin **73** of crank **67** and having a hooked end **93**. A portion of the spring element **92** bears against the bottom surface of plate portion **81** to urge the spring element towards the ratchet wheel **90**. Since depression of the trigger **28** causes the pin **73** to move toward the rubber wheel **88**, the hook portion **93** of spring element **92** will be moved from one notch in the ratchet wheel **90** to the next adjacent notch while the spring **91** retains the ratchet wheel in the same position. Upon release of the trigger **28** the hooked portion **93** engages a tooth of ratchet wheel **90** to rotate the ratchet wheel an angular amount equal to the distance between ratchet teeth whereupon spring **91** again locates and retains the position of the wheel. The angular spacing between ratchet teeth and the diameter of frictional wheel **88** are such that each cycle of movement causes the web **11** to be advanced a distance equal to the desired center-to-center distance between the indicia **44** being hot stamped on the web. The links **72** are provided with slots **94** through which the shaft of roller **88** passes and the bottom edge of the slots engages the shaft. The slots **94** are slightly inclined whereby movement of the links **72** during the depression stroke of trigger **28** urges the roller **88** slightly upwardly in the slots **89** to produce a more firm contact between the rubber roller and the web **11** thereby assuring that the web will be advanced the appropriate amount during the releasing stroke of trigger **28**. It is to be noted from FIGURE 8 that in the completely depressed position of trigger **28** (as during hot stamping) that the hook **93** is in a position somewhat beyond the tooth that it will engage to rotate the ratchet wheel **90** during the release stroke of trigger **28**. This arrangement permits the anvils **57** and **60** to initiate their separating movement and release the web **11** before the roller **88** is rotated to advance the web. This "overstroking" of element **92** also permits the operator to depress trigger **28** less than the full stroke, such as a half-stroke, whereby the hook portion **93** rides into the next notch for engaging a new tooth before the anvils **57** and **60** cause engagement between the web **11** and indicia **44**. Then by releasing the trigger **28** the roller **88** will be rotated to advance the web **11** one space. This permits the operator to quickly provide one or more spaces between words and numbers on the web by a mere partial depression of the trigger.

Means are provided for severing a completed label from the continuous web **11** remaining in the device and, as shown in the drawings, these means may include juxtaposed knife means **95** and an anvil **96** between which the web **11** passes. Anvil **96** is movably mounted in block **61** and is resiliently urged to the lowermost position by coil compression springs **97** similar to the aforedescribed mounting of anvil **60**. A selection knob **98** extends through an aperture **99** in the wall of housing portion **23** and is threadedly connected to lever **66** at **100**. By manipulating knob **98** the end **69** of lever **66** may be moved from its normal position beneath anvil **60** to a position beneath anvil **96**, whereby depression of trigger **28** will cause upward movement of anvil **96** as shown in FIGURE 9. Since anvil **60** is not moved upwardly under these circumstances there is insufficient pressure and contact to impose an indicia **44** on the web **11** during this severing operation.

The knife means **95** includes a pair of spaced knife blades **101** and **102** confronting the anvil **96**. The upper surface of anvil **96** is provided with a ridge portion **103** opposite the knife blade **101** whereby the knife blade **101** completely shears the web **11** and abuts anvil **96** while knife blade **102** partially shears web **11** without engaging anvil **96**. Referring specifically to FIGURES 4 and 5, the web **11** is usually comprised of the label stock **12** with an adhesive backing covered by a disposable plastic or paper backing **13**. If the web is cleanly sheared on the end it is relatively difficult to remove the paper backing for applying the label to the particular article. However, knife blade **102** severs the web **11** to the depth of the backing **13**, thereby forming a tab between knife blades **101** and **102** to facilitate peeling the backing **13** off the label stock **12** as shown in FIGURE 5. A stripper spring **104** is mounted between blades **101** and **102** and normally protrudes downwardly beyond the edges of the knife blades **101** and **102**. After the web **11** has been severed as shown in FIGURE 4, the stripper spring **104** serves to disengage the web from the knife blades **101** and **102** as the anvil **96** is lowered.

From the foregoing, it may be seen that a device is provided by this invention which is capable of successively hot stamping selected indicia on a continuous web of heat sensitive material. The device is portable and readily operated by simply depressing a trigger on the handle member. The device is readily adaptable for use with any type of heat sensitive label stock including the type which employs a base stock with a light overlay ribbon from which the indicia is stamped onto the base stock. With such type of label stock the ribbon and base stocks would be wrapped in overlying relation in the roll **10**. The depleted ribbon would simply be stripped from the label stock after shearing the label from the device.

It is also to be understood that the specific apparatus described and illustrated herein may be modified without departing from the scope of the invention. For example, a heating element could be connected to wheel **42** such that wheel **42** is heated rather than heating anvil **57**.

Having fully described the device of my invention it is to be understood that I do not wish to be limited to the details herein set forth or to the details illustrated in the drawings but my invention is of the full scope of the appended claims.

I claim:

1. In a portable device for hot stamping indicia on a continuous heat sensitive web, the combination of: a housing, a trigger member pivotally mounted on the housing, a flat wheel rotatably mounted in said housing, means for selectively rotating said flat wheel, a hammer means movably mounted on one side of said flat wheel for movement toward said flat wheel, means for controllably heating said hammer means, an anvil movably mounted on the other side of said flat wheel opposite said hammer means for movement toward said flat wheel and hammer means, said flat wheel having a mul-

tiplicity of circumferentially spaced and outwardly extending heat-conductive fingers around the entire periphery, said fingers having raised indicia facing said anvil, means for positioning the web between said anvil and said flat wheel, and means for moving said hammer means into engagement with one of said fingers upon depression of said trigger member for simultaneously heating and flexing that finger into engagement with the web and for moving said anvil toward said web for hot stamping the indicium of that finger on the web.

2. In a portable device for hot stamping indicia on a continuous heat sensitive web, the combination of: a housing, a trigger member pivotally mounted on the housing, a flat wheel rotatably mounted in said housing, means for selectively causing rotation of said flat wheel, a hammer movably mounted on one side of said flat whel for movement toward said flat wheel, means for controllably heating said hammer, an anvil movably mounted on the other side of said flat wheel opposite said hammer for movement toward said flat wheel and hammer, said flat wheel having a multiplicity of circumferentially spaced and outwardly extending heat-conductive fingers around the entire periphery, said fingers having raised indicia facing said anvil, said hammer having means for engaging and flexing a single finger upon said movement toward said wheel, means for guiding a heat sensitive web between said anvil and said flat wheel, means for moving said anvil toward said flat wheel upon actuation of said trigger member, and means for moving said hammer into engagement with one of said fingers upon actuation of said trigger member for simultaneously heating and flexing that finger into engagement with the web as supported by the anvil for hot stamping the indicium of that finger on the web.

3. In a portable device for hot stamping indicia on a continuous heat sensitive web, the combination of: a housing, a trigger member pivotally mounted on the housing and movable between depressed and released positions, a flat wheel rotatably mounted in said housing, means for causing rotation of said flat wheel, a hammer movably mounted on one side of said flat wheel for movement toward said flat wheel, means for controllably heating said hammer, an anvil mounted on the other side of said flat wheel opposite said hammer, said flat wheel having a multiplicity of circumferentially spaced and outwardly extending heat-conductive fingers around the entire periphery thereof, said fingers having raised indicia facing said anvil, means for positioning the heat sensitive web between said anvil and one of said indicium, a shear means with the web passing therethrough and having an element movable to cause shearing of the web, means for selectively moving said movable element to cause shearing of the web upon movement of the trigger member from the released to the depressed position, and means for moving said hammer into engagement with one of said fingers upon depression of said trigger member for simultaneously heating and flexing that finger into engagement with the web as supported by the anvil and hot stamping the indicium of that finger on the web.

4. In a portable device for hot stamping indicia on a continuous heat sensitive web having a removable backing, the combination of: a housing, a trigger member pivotally mounted on the housing for movement between depressed and released positions, a flat wheel rotatably mounted in said housing and having a shaft protruding out of the housing, a dial wheel mounted on said shaft exteriorly of said housing for manipulation to cause selective rotation of said flat wheel, a hammer movably mounted on one side of said flat wheel for movement toward said flat wheel, means for controllably heating said hammer, an anvil movably mounted on the other side of said flat wheel opposite said hammer for movement toward said flat wheel and hammer, said flat wheel having a multiplicity of circumferentially spaced and outwardly extending heat-conductive fingers around the entire periphery, said fingers having raised indicia facing said anvil, a cradle in said housing for supporting a roll of the heat sensitive web, a pair of juxtaposed rollers mounted in said housing for passing the web therebetween in contact therewith and directing the web between said anvil and a said finger of said flat wheel, one said roller having a frictional surface engaging the web and an attached ratchet wheel, a link means connected to said trigger member and having means for engaging said ratchet wheel to cause predetermined amount of roller rotation upon release of said trigger member from the said depressed position, a shear means with the web passing therethrough, said shear means having an element movable to cause shearing of the web and including two spaced knives with one positioned for completely shearing the web and the other positioned for shearing only to the depth of the removable backing, a crank pivotally mounted in said housing and connected to said link means for pivoting upon actuation of said trigger member, a lever pivotally mounted on said crank and selectively movable between a position for engaging said anvil and a position for engaging said movable element of the shear means for selectively moving said anvil toward said flat wheel or said movable element toward shearing position upon movement of the trigger member from the released to the depressed position, and means for moving said hammer into engagement with one of said fingers upon depression of said trigger member for simultaneously heating and flexing that finger into engagement with the web as supported by the anvil and hot stamping the indicium of that finger on the web.

5. In a portable device for hot stamping indicia on a continuous heat-sensitive web, the combination of: a housing, a trigger member pivotally mounted on the housing, a flat wheel rotatably mounted in said housing, means for selectively rotating said flat wheel, a hammer means movably mounted on one side of said flat wheel for movement toward said flat wheel, means for controllably heating said hammer means, an anvil mounted on the other side of said flat wheel opposite said hammer means, said flat wheel having a multiplicity of circumferentially spaced and outwardly extending fingers around the entire periphery, said fingers having raised indicia facing said anvil, means for positioning the web between said anvil and said flat wheel, and means for moving said hammer means into engagement with one of said fingers upon depression of said trigger member for simultaneously heating and flexing that finger into engagement with the web for hot stamping the indicium of that finger on the web.

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