Aug. 16, 1949. S. C. STONEHAM 2,479,028

TAG-FORMING AND ATTACHING COMBINATION

Filed Jan. 31, 1949

Fig. 1.

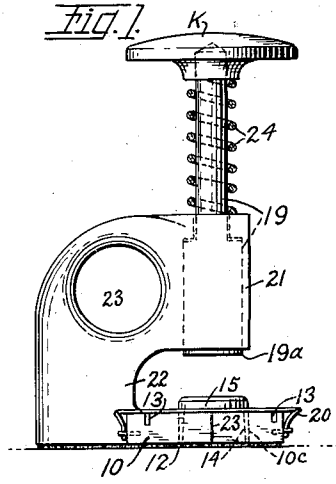


Fig. 2.

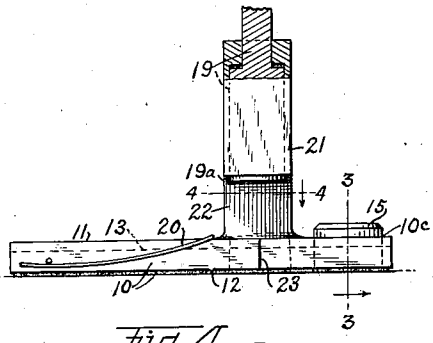


Fig. 3.

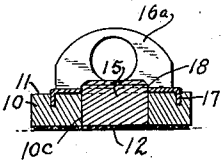


Fig. 4.

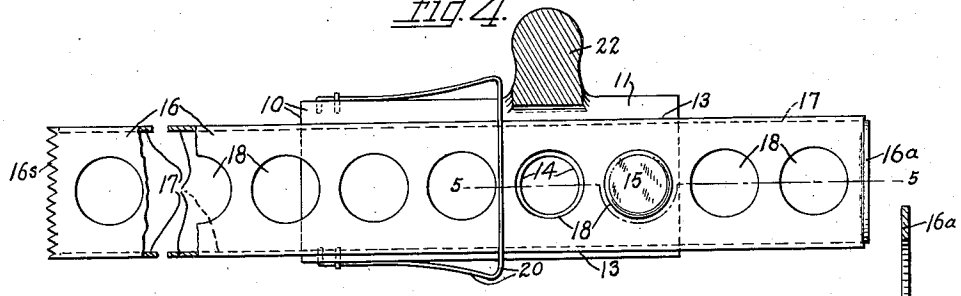


Fig. 5.

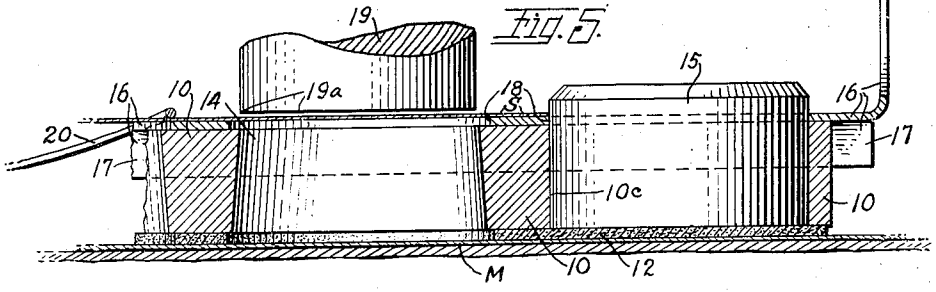
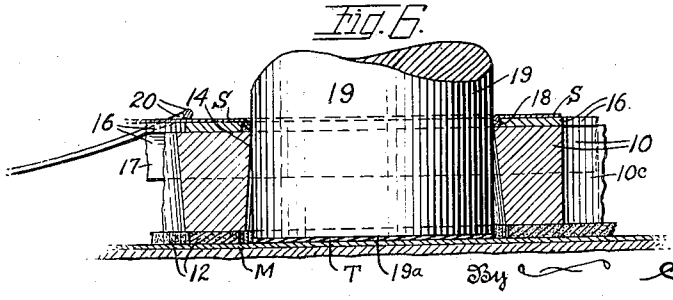


Fig. 6.



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TAG-FORMING AND ATTACHING COMBINATION

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5 Claims. (Cl. 216—22)

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This invention relates to a tag-punching and attaching combination of elements, and is especially intended to form a tag or label and instantly attach it in any elected position on a map or chart; one purpose being to indicate, by said position, a terrestrial or aquatic location where oil or gas exists; and to indicate by color, shape or other appearance of the tag or label, by comparison with any appropriate map-legend or chart-legend, any information that such comparison may reveal; one example being in connection with oil-wells and gas-wells as to their respective locations and a running account of their various stages of development; such account being kept on a map or a chart that has the tags or labels applied thereon and has thereon an appropriate legend. One example of such legend is as follows:

Legend

Red tag—Well location discovered.
Blue tag—Drilling started (well "spudded in").
Green tag—Drilling suspended (lost drill stem).
Yellow tag—Well completed as an oil producer.
Brown tag—Well completed as a gas producer.
Orange tag—Well completed as a dry hole (abandoned).

Tag-strips or tape of different colors, or each of different appearance, are each provided with a coat of non-drying adhesive by which, when laid flat on the carriage of the present combination, is temporarily adhered to the carriage while a number of the tags are punched therefrom and instantly adhered to elected points on the map or chart where they all (being of same color or appearance) indicate the same condition of the wells; and when desired to use a tag-strip of a different color or appearance on the carriage, the adhering strip can be quickly detached or pulled off to make place on the carriage for the tag-strip of different color or appearance.

One object of this invention is to provide an exceedingly simple, low-cost, convenient, quick and thoroughly practical device for attaching the tags or labels instantly after forming them, thereby eliminating the inconveniences that attend the use of pre-cut tags or labels, especially the ones that include non-drying adhesive so they adhere to each other and to fingers of the users of such pre-cut tags.

Another object is to provide means whereby the tag-strip is stretched tightly at the place and time the punching of the tape begins in each punching and attaching operation.

Other objects or important features are pointed

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out or implied in the following details of description in connection with the accompanying drawings, in which:

Fig. 1 is a right-side elevation of the main unit of this present invention, only one element thereof being shown in vertical section.

Fig. 2 is a front elevation of the main part of the device shown in Fig. 1, upper portions being broken away and in vertical section.

Fig. 3 is a sectional view along the line 3—3 of Fig. 2.

Fig. 4 is a view partly in horizontal section and partly in top-plan, a portion being broken out at the left end, the section being taken along the line 4—4 of Fig. 2.

Fig. 5 is a greatly enlarged fragmental sectional view substantially along the line 5—5 of Fig. 4, and having a part of a tag-strip on the carriage; the punch-end being slightly spaced above the tag-strip.

Fig. 6 is a greatly enlarged view in section along the same line as in Fig. 5, but showing the tag (T) pressed on the map (M) by the shearing end of the punch (19) which has punched the tag from the tag-strip (16).

Referring to these drawings in detail, in which similar reference numerals represent similar parts in the several views, the invention is described in detail as follows:

In rather broad terms, the invention comprises a tag-forming and attaching combination that includes a base 10, having a working side 11 and having a seating side 12 that is seatable on a surface to be tagged or labeled, for instance, the upper surface of a chart or map indicated at M. The base 10 includes a carriage-track 13 that extends along said working side from end to end; and this base also includes an apertured die-portion 14 that extends therethrough from said working side to said seating side. The base also includes a boss 15 that projects from said working side, and may be referred to hereinafter as a positioning boss. The carriage 16 is normally seated on said carriage-track and moveable therealong and provided with guiding means secured against movement transversely on said carriage-track while seated on the latter; the guiding means being referred to above as the carriage-track 13 in co-operation with a flange or flanges 17. Said carriage 16 has thereon a row of evenly spaced openings 18, each of proper size to receive and fit closely around said positioning boss 15 and thereby position other of said openings respectively in open communication with the aperture of the die-portion 14.

A conventional type of punching means is shown at 19 and has an end 19a of proper size and shape to co-operate with the die-portion 14 and carriage 16 for punching a tag T (or label) from an adhesive-coated strip S when the latter is adhered to said carriage 16 and is covering any opening 18 thereof which is communicating with said aperture of the die-portion 14. The punching means 19 is operable to push the tag or label instantly through the die-portion 14 and press its adhesive coat onto the surface on which the seating side 12 of said base is seated.

A spring-means 20 is secured to said base 10 and is effective to yieldingly press the carriage against the guiding means 13 while retaining the carriage in engagement with the positioning boss 15, while being yieldable to permit the carriage to be disengaged from the boss 15 and adjusted to bring any one of the openings 18 into position around said boss 15.

The means for guiding the punch 19 is shown at 21 and is united with the base 10 by an element 22, and these elements 21 and 22 guide the punch 19 into co-operative relation with said aperture of the die-portion 14, and said elements 21 and 22 are also effective as a handle for conveniently placing the apertured die-portion 14 in a predetermined position around a point where the tag or label is to be applied on the map or chart; and an index line 23 points to the center of the die-portion where the tag is to be applied and adhered.

The inlet-margin of the aperture at 14 is a shearing edge that is spaced inwardly from the margin of the nearest opening 18 of the carriage, so that the margin of said nearest opening is a means to hold the adhesive coating of the strip S out of contact with all parts of said base except directly at the shearing edge when the part 19a of the punching means 19 cooperates with the die-portion 14 in cutting out the respective tags T. (See Fig. 6.) Referring now to Fig. 5, it will be seen that when the shearing edge 19a first moves into contact with the adhesive-coated strip S, it begins and continues to stretch the strip until the latter touches the shearing edge at the upper end of the aperture 14, where the cutting or shearing is quickly accomplished as the edge 19a moves downward.

When the tag has been sheared from the strip S, the operator continues to move the shearing means downward until the lower end of the element 19 presses the tag T firmly on the map M, thereby causing the non-drying adhesive to removably secure the tag T to the map M.

The pressing means consists of or comprises the elements 19 and K, the latter being a knob which the user may conveniently press downward when the map is disposed horizontally on a table and has the base 10 seated thereon. However, this device can be conveniently used on a wall-map, and in thus using it, one finger of the user may be passed through the opening 23, while the knob K is in the palm of the user's hand, so the seating side 12 can then be conveniently turned to a vertical position and pressed against the wall-map while the user may operate the punching means by either gripping or pushing or both.

The seating surface 12 is preferably a sheet of felt, rubber or other cushioning material, to avoid injuring any surface on which it may be pressed or seated.

The boss 15 may well be an end of a short piece of rod tightly fitted in a cavity 10c of the base 10 and projecting past the working surface 11. The diameter of the boss 15 is slightly less than the diameter of any opening 18, so the carriage is easily disengaged from this boss by lifting the adjacent end of the carriage against pressure of the spring-means 20 and when thus lifted, the carriage can be moved for engaging any one of the openings 18 with the boss 15 in the manner shown in the drawing.

In attaching the strip (any selected strip) to the carriage 16, one end of the strip is firmly pressed on the carriage-portion near the boss 15, so it adheres thereto, while other parts of the strip are laid evenly along the carriage to the serrated tear-off end 16s where it is pressed and adhered to the carriage at this tear-off end and at other portions along the carriage, so it is then ready for being punched successively through the series of openings 18 so as to form and instantly apply and adhere each tag thus formed by shearing or punching with this device.

I have no intention to limit my patent protection to the precise details as shown and as described in the foregoing, for the invention is susceptible of numerous changes within the scope of the inventive ideas, as implied and claimed.

I claim the following as my invention:

1. In a tag-forming and attaching combination, an elongated base having a working side and having a seating side that is seatable on a surface to be tagged or labeled, said base including a carriage-track along said working side and having an apertured die-portion therethrough from said working side to said seating side, a positioning boss projecting from said working side; a carriage normally on said carriage-track and movable therealong and provided with guiding means to secure it against movement transversely of said carriage-track while seated on the latter, said carriage having therethrough a row of evenly spaced openings each of a proper size to receive and fit closely around said boss and thereby position other of said openings respectively in open communication with the aperture of the die-portion, punching means having an end of proper size and shape to cooperate with said die-portion and carriage for punching a tag or label from an adhesive-coated strip when the latter is adhered to said carriage and is covering any opening thereof which is communicating with said aperture of the die-portion, said punching means being operable to push said tag or label through said apertured die-portion and press its adhesive coating onto a surface on which said seating side of said base is seated.

2. The combination defined by claim 1, and spring-means effective to yieldingly press said carriage in engagement with said guiding means and with said positioning boss and to permit the carriage to be disengaged from said boss and adjusted to bring any one of said openings into position around said boss.

3. The combination defined by claim 1, and punch-guiding means united with said base and engaged with said punching means in a proper relation to guide the latter into co-operative relation with said aperture of said die-portion, said punch-guiding means also being effective as a handle for conveniently placing said apertured die-portion in a predetermined position around a point where the tag or label is to be applied on said surface.

4. In the combination defined by claim 1, said carriage-track being a groove in said working side, and said carriage having a flange along at least one edge-portion and seated to slide in said

groove when said carriage is disengaged from said positioning boss.

5. In the combination defined by claim 1, the margin of said aperture being a shearing edge that is spaced inwardly from the margin of the nearest opening of the carriage, so that the margin of said nearest opening is a means to hold the adhesive coating of said strip out of contact with all parts of said base except the said shearing edge when said punching means co-operates with said die-portion.

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The following references are of record in the file of this patent:

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