United States Patent

Wittcke et al.

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[54] IDENTIFICATION AND INFORMATION TAG FOR FARM ANIMALS ESPECIALLY CATTLE

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[22] Filed: **Aug. 20, 1969**

[21] Appl. No.: **851,651**

[52] **U.S. Cl.** **40/300**, 40/70

[51] **Int. Cl.** **G09f 3/00**

[58] **Field of Search** 40/300, 301, 302, 303, 304, 40/70, 71

[56] **References Cited**

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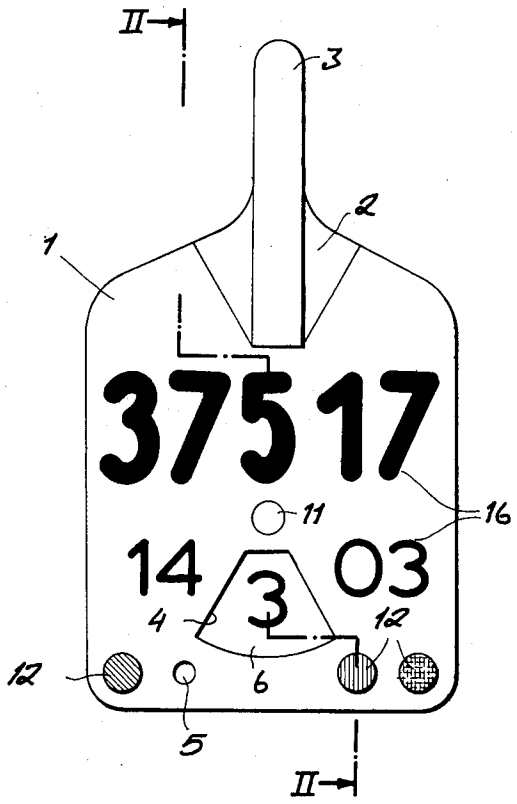
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Primary Examiner—Robert W. Michell
Assistant Examiner—L. R. Oremland
Attorney—Karl F. Ross

[57] **ABSTRACT**

An identification tag, affixed to a neck strap or a skin fold of a cow or other farm animal, carries fixed symbols relating to invariable or rarely variable data such as pedigree and ownership, removable markers signifying recurrent events such as gestation, insemination or lactation, and a rotatable and indexable disk bearing indicia pertaining to frequently changing conditions or requirements (e.g., prescribed rate of feeding) selectively viewable through a cutout in the tag body.

4 Claims, 14 Drawing Figures



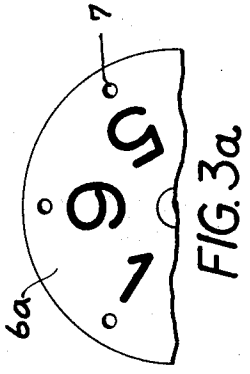


FIG. 3a

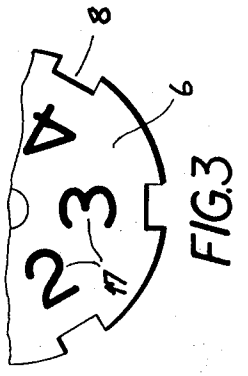


FIG. 3

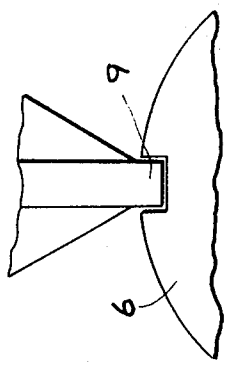


FIG. 4

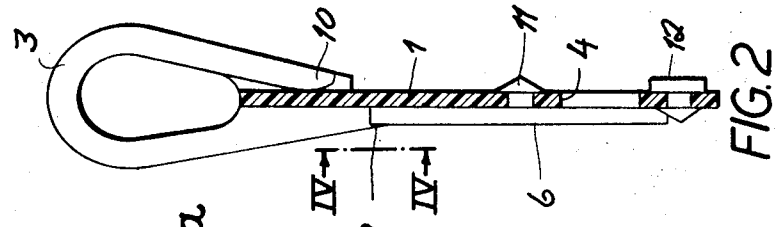


FIG. 2

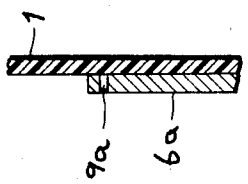


FIG 2a

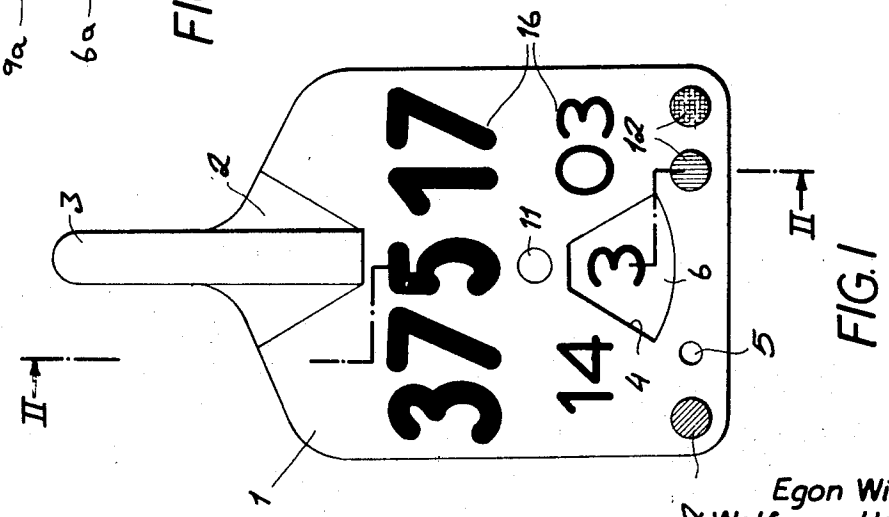


FIG. 1

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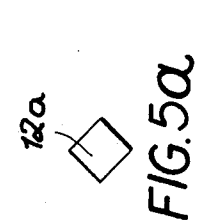


FIG. 5a

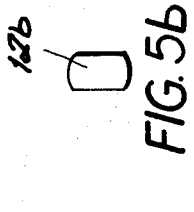


FIG. 5b

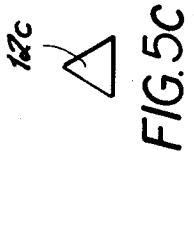


FIG. 5c

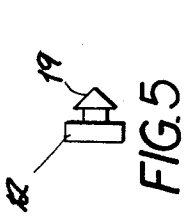


FIG. 5

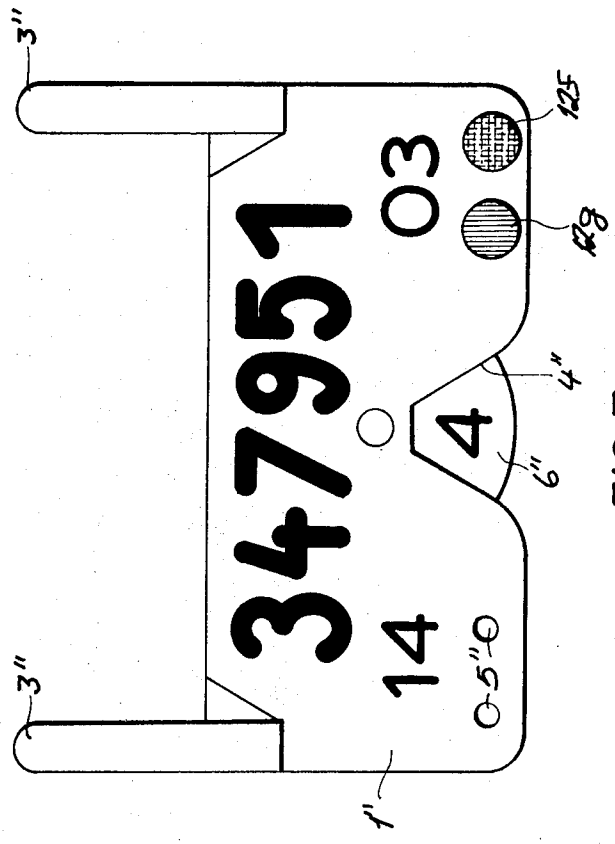


FIG. 7

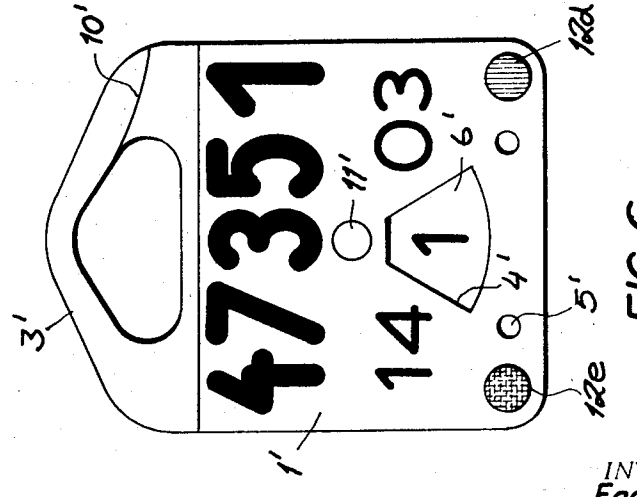


FIG. 6

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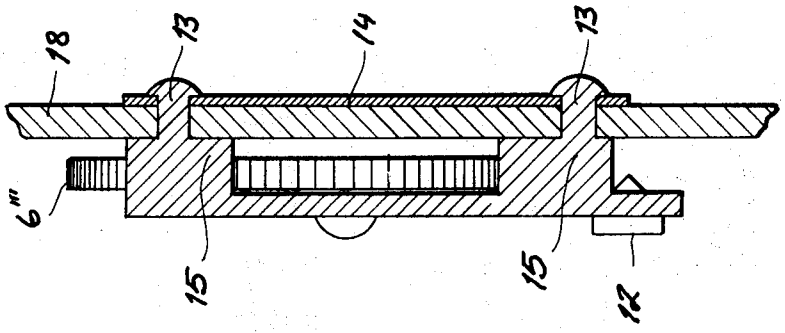


FIG. 9

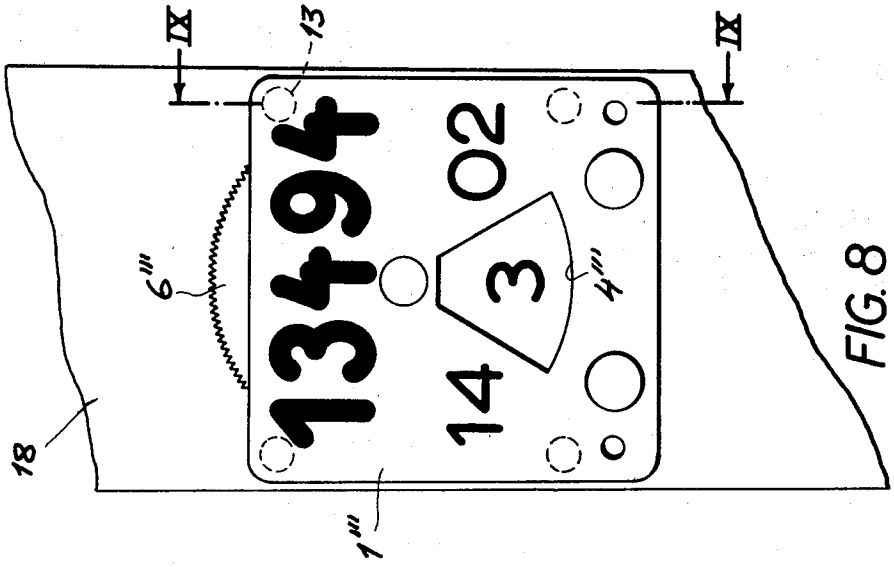


FIG. 8

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IDENTIFICATION AND INFORMATION TAG FOR FARM ANIMALS ESPECIALLY CATTLE

Our present invention relates to an identification tag for revealing both permanent and variable data relating to farm animals, particularly cattle.

Animal-identification tags of various shapes and sizes are already known for revealing the pedigree number and the date of birth and/or group number of the animal, i.e., permanent or rarely varying information pertaining to the animal wearing the tag. More recent tags have been made large enough to enable the animal attendant to read them from a distance. Furthermore, neck straps for animals are known onto which the identifying data are stamped or burned or to which a plate containing the same data is secured.

These known tags enable the attendant merely to identify the animal at hand so as not to confuse one animal with another. After identifying the animal by means of the tag, the attendant must look up such information as yield (e.g., in the case of a cow), acts of procreation and state of health of that animal in a register file, a barn record, or some other place extraneous to the animal itself and its tag. The attendant often keeps a booklet on his person in which each animal is listed according to its identifying data and which contains important information concerning each animal, e.g., the fact that a cow has been successfully inseminated or is ready for insemination, or the fact that for some reason the milk of this cow must be kept separate from that of the others.

Prior identification tags had the great disadvantage of offering the attendant less than all the needed information concerning the animal at hand. Especially where there are large numbers of cattle involved, it is time-consuming and therefore costly for the attendant to be forced to look up the necessary information for each cow at each milking. This disadvantage is intensified by the fact that in parlor or rotolactor milking systems the attendant has very little time to expend on each animal.

A cow is usually fed while being milked, and the quantity of foodstuff given the cow is determined by the amount of milk yielded by her at the preceding milking. Where the distribution of food is carried out automatically or semiautomatically under the control of the attendant, the latter must know how much food to apportion to each cow taking her turn.

Conventionally, tags identifying cattle and other large farm animals are attached to the animal's neck (directly or through a neck strap) or ears. In parlor milking, however, the attendant cannot see the neck or ears of the cow. Tags have previously been affixed also to the tail or the fetlock of the animal, but such an attachment is not dependable and also exposes the tag to soiling.

It is an object of our invention to provide a method of classifying farm animals, especially cattle, in such a way that an attendant can gather from it all pertinent information concerning the animal, such as data on milk yield, food apportionment, state of health, acts of procreation, pedigree number, date of birth, group number, and ownership, thus eliminating the need for looking up extraneous sources of information. A related object is to provide simple and easily viewable means for displaying that information on the animal.

These objects of our invention are achieved by means of an identification tag having a plate-shaped body provided with symbols relating to substantially permanent classification data about the animal, and movable portions adapted to indicate such variable data as milk yield and procreative condition. The movable portions advantageously comprise a set of pegs with distinctively shaped and/or colored heads and with shanks removably received in openings on the plate, e.g., for indicating data on recurrent events such as breeding, and a rotatable disk bearing indicia for indicating such variable conditions or requirements as the amount of food to be apportioned to a cow during milking. Only one sector of the disk is visible through a cutout in the plate in any disk position, the disk being preferably indexable in a number of positions displaying different sectors.

According to another feature of our invention, the tag may be affixed to the folds of skin at the flanks near the udder of a cow, so that the tag stays relatively clean and the attendant can readily see it during milking.

The above and other objects, features and advantages of our invention will be made clearer during the course of the following description, reference being made to the accompanying drawing in which:

FIG. 1 is a front-elevational view of an identification tag according to our invention;

FIG. 2 is a cross-sectional view taken along the line II—II of FIG. 1;

FIG. 2*a* is a fragmentary cross-sectional view similar to FIG. 2, illustrating a modification;

FIG. 3 is a partial front-elevational view of a notched information disk forming part of the identification tag shown in FIG. 1;

FIG. 3*a* is a view similar to FIG. 3, showing part of a perforated disk usable with the device of FIG. 2*a*;

FIG. 4 is a detail view taken on the line IV—IV of FIG. 2;

FIG. 5 is a side view of a marking peg used on the device of FIGS. 1 and 2;

FIGS. 5*a*, 5*b* and 5*c* are front views of similar marking pegs having different configurations;

FIG. 6 is a view similar to FIG. 1, showing a modified identification tag according to our invention;

FIG. 7 is a view similar to FIGS. 1 and 6, illustrating a further type of identification tag according to our invention;

FIG. 8 is a front-elevational view of a modified identification tag attached to a neck strap; and

FIG. 9 is a cross-sectional view taken along the line IX—IX of FIG. 8.

FIGS. 1 and 2 show an identification tag for animals, especially cows, comprising a plate 1 of plastic material farmed integrally with a flexible loop 3 which rises above body 1 in its vertical median plane. The loop, by which the tag is affixed to the animal, is preferably lockable at a gusset 2 on the rear surface of plate 1 by means of a frangible seal 10 which does not allow reuse after being broken. The plate 1 carries identifying numerals 16 embossed or imprinted thereon, indicating non-variable identifying data pertaining to the animal destined to wear the tag, for instance the date of birth of the animal, its lineage and its pedigree number, or such pseudopermanent factors as the butterfat content of a cow's milk.

In the center of plate 1 there is an opening to receive a rivet 11 serving as a pivot for a rotatable information disk 6 attached parallel to the rear surface of the plate. The disk is provided with indexing means for preventing its spontaneous rotation. FIGS. 3 and 4 show the disk 6 provided with peripheral notches 8 engageable by an indexing tab 9 which is a terminal extension of the strip forming the loop 3. After the disk 6 has been rearwardly deflected for rotation to a desired position by the animal attendant, the projection 9 engages with the selected indentation 8 to lock the disk in place. According to FIGS. 2*a* and 3*a*, a disk 6*a* is provided with peripherally spaced holes 7 that are engageable by a pin 9*a* carried on the rear surface of the plate 1 after the disk is allowed to snap back into its normal position upon having been rotated to the desired extent. The disk 6 or 6*a* carries numerical indicia 17 pertaining to variable classification data of the animal to wear the tag, for example the number of pounds of milk given by a cow at her previous milking, this information determining the quantity of enriched fodder to be fed to the cow during her next milking. The numeral 17 relevant to the cow's performance is made to show through a window 4 provided on plate 1 upon alignment of the corresponding sector of disk 6 with that window 4. The number of such sectors in this case should, of course, correspond to the number of different feed rations available at the milking station.

In addition to the opening for the pivot 11 of disk 6, plate 1 is provided with one or more perforations 5 for receiving marking pegs, generally designated 12, which are insertable into these perforations where they are retained by rearwardly

pointed shoulders **19** on their shanks. The presence of these markings may reveal such temporary conditions as an infection of a cow's udder, the fact that the cow has been successfully inseminated, or the present state of her lactation. For this purpose each peg **12** has a head of distinctive color and/or shape, as illustrated at **12***a*, **12***b*, **12***c* in FIGS. **5***a*–**5***c* and at **12***d*, **12***e*, **12***f*, **12***g* in FIGS. **6** and **7**. When the condition signified by a peg **12** changes, the obsolete indicator is removed with the aid of front-end nippers to provide room for an updated indicator.

FIG. **6** shows a modification of the identification tag according to our invention; a fastening loop **3'**, parallel to a plate **1'**, extends from one end of the top of the plate to the other, where it is locked at **10'**. A disk **6'**, pivoted at **11'**, is partly visible through a cutout **4'**.

In the identification tag shown in FIG. **7** the desired sector of a disk **6''**, bearing a selected numeral, appears in a cutout **4''** along one edge of a plate **1''**. Two fastening loops **3''** are perpendicularly connected to the plate, one at each top corner. These loops are lockable on the rear surface of the plate, as described above.

The loops **3** (FIGS. **1** and **2**), **3'** (FIG. **6**) and **3''** (FIG. **7**) are drawn through holes cut into the hide of the animal, preferably into the folds of skin at the flanks to the right or left of the udder, thereby attaching the tag to the animal once the loop has been locked.

FIGS. **8** and **9** show a tag which is affixed not directly onto the animal but rather to a neck strap **18**. The rear surface of a plate **1'''** is provided with bosses **15** carrying fastening pins **13** which fit into openings in the strap **18** and traverse a backing plate **14** for strengthening the attachment of the tag onto the strap. The strap **18** rests against the bosses **15** and is retained by the plate **14** which in turn is held in position by the peened-over tips of fasteners **13**. The information disk **6'''** of this tag has a milled periphery projecting at the top of the plate **1'''**, in front of strap **18**, to facilitate its rotation by the attendant.

We claim:

1. A tag for classifying farm animals, comprising:

a flat body provided with a window;

suspension means on said body for affixing same to an animal to be classified;

a disk rotatably secured to a rear surface of said body, said disk being provided with markings individually viewable in different rotary positions thereof through said window, said disk being further provided with a number of angularly spaced recesses corresponding to the number of said rotary positions;

and a projection on said rear surface selectively engageable with said recesses in different disk positions and disengageable therefrom upon a relative flexing of the disk periphery and said body away from each other, such disengagement enabling rotation of said disk into a selected position, said body being provided with a pivot remote from said projection centrally traversing said disk and holding same onto said rear surface without axial play, said body and said disk having a structure permitting said relative flexing thereof.

2. A tag as defined in claim **1** wherein said suspension means comprises an elongate strip integrally joined at one end to said body and bent into a loop, the other end of said strip engaging a coacting formation on said body and forming therewith a frangible seal.

3. A tag as defined in claim **2** wherein said recesses are peripheral notches.

4. A tag as defined in claim **3** wherein one of said ends rests against said rear surface and has a tip constituting said projection.

* * * * *