P. J. KELLY.

SHEEP BRANDING DEVICE.

APPLICATION FILED DEC. 11, 1916.

1,281,978. Patented Oct. 15, 1918.

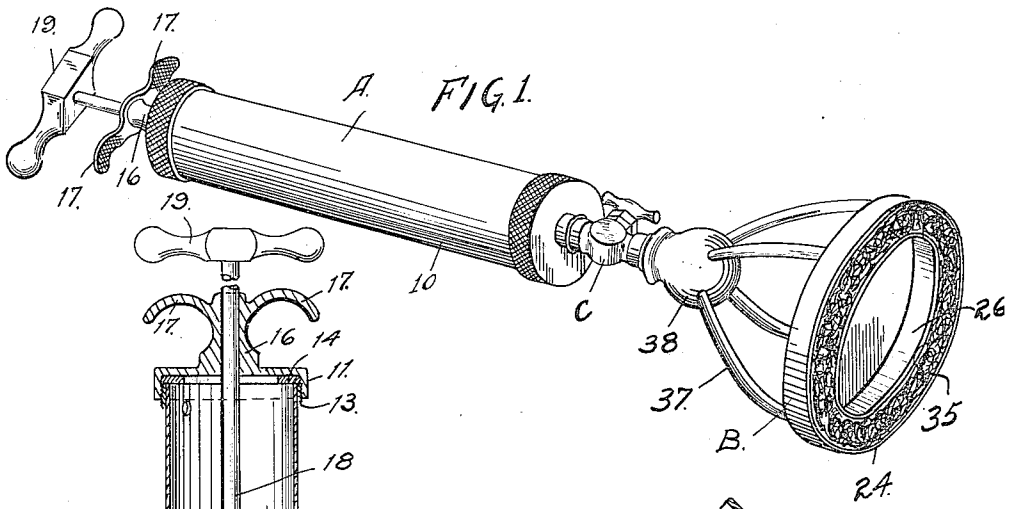

FIG. 1.

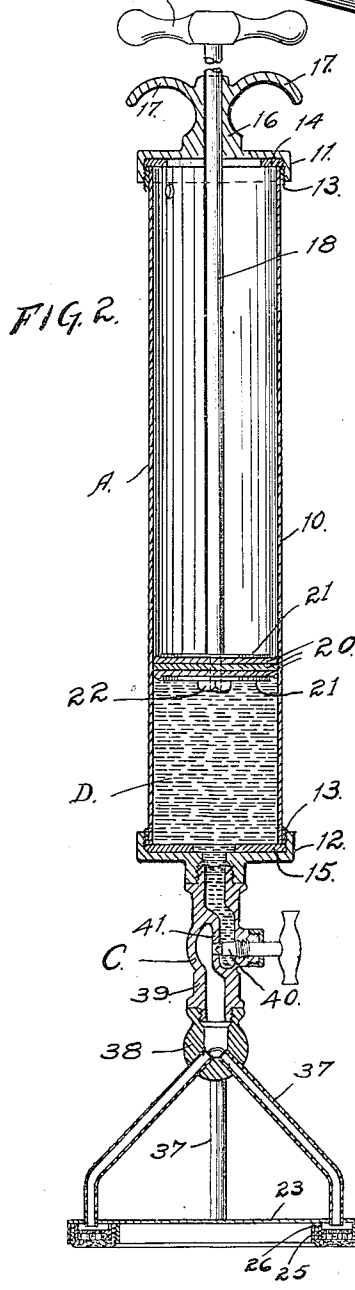

FIG. 2.

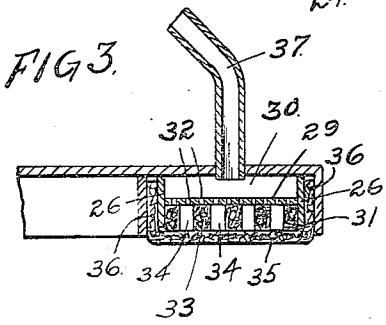

FIG 3.

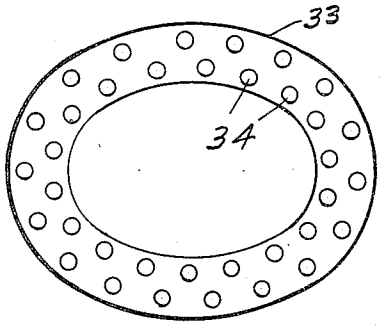

FIG. 4.

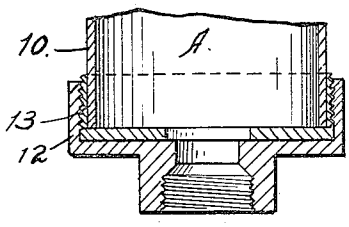

FIG. 5.

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SHEEP-BRANDING DEVICE.

1,281,978. Specification of Letters Patent. Patented Oct. 15, 1918.

Application filed December 11, 1916. Serial No. 136,182.

To all whom it may concern:

Be it known that I, PIERCE J. KELLY, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Sheep-Branding Devices, of which the following is a specification.

My invention relates to devices for branding sheep or other live stock, and particularly to the class of branding devices adapted to use dye, or other forms of marking fluids, for printing the mark of ownership upon the wool of the animal.

The invention has as one of its objects to provide a branding device of the above type with which any desired mark of ownership may be applied to the wool of a large number of sheep, for example, with accuracy and rapidity, and that such mark produced will be clear and distinct.

A further and more specific object of the invention is to provide a branding device of the above character, in which the arrangement, construction and combination of the various parts and devices facilitates the equal distribution of the marking fluid over the entire area of the marking surfaces so as to produce a sharply defined mark of equal density throughout.

The invention has as further objects such novel arrangements, construction and combination of parts that may be hereinafter more specifically described and claimed, which coöperate in the production of a device of the above character, that is simple in construction, easily manipulated and inexpensive to manufacture.

The preferred embodiment of my invention is illustrated in the accompanying drawing, in which like characters of reference designate like parts, and in which—

Figure 1 is a view in perspective of a sheep branding device, constructed in accordance with my invention.

Fig. 2 a longitudinal sectional view of the same.

Fig. 3 an enlarged fragmentary sectional view of the branding element, illustrating the internal construction of the same.

Fig. 4 a plan view of one of the absorbent pads used in the preferred construction of my device; and

Fig. 5 a fragmentary sectional view drawn on a larger scale, of the lower end of the cylinder element.

In the drawing I have shown my invention as consisting of a container designated generally at A and a detachable branding member B connected to the container by means of a valve C. The container is preferably formed from a cylindrical tube 10 of any suitable material, preferably brass, having its upper and lower ends closed with screw caps 11 and 12 respectively, which are made of harder metal such as cast iron or steel. In order to provide a construction wherein it is possible to use thin tubing, of brass for the cylindrical member 10, and at the same time provide a strong connection between the cylindrical member and its end closure caps, I preferably provide rings 13 which are threaded and shrunk on the ends of the cylinder. The rings 13, if desired, may be made of heavier material than the cylinder so as to permit the cutting of heavy threads thereon and thereby provide a stronger connection between the cylinder and closure caps than would be provided if the ends of the comparatively thin cylinder member were threaded directly. 14 and 15 designate leather gaskets interposed between the ends of the cylinder and the inner surface of the closure caps. The closure cap 11 is provided with a boss 16 which terminates in finger grips 17 and is formed with a bore which serves as a bearing for a piston rod 18. Secured to the upper end of the piston rod is a hand grip 19 and to the lower end a piston comprising leather disks 20 clamped between metal plates 21, by means of the nut 22 threaded on the lower end of the piston rod.

The branding member B is shown in the drawings as being oval in shape. This particular shape has been used only for the purpose of illustrating the invention and it should, therefore, be understood that the idea embodied in the branding member illustrated in the drawings can be employed equally as well in the construction of any form of branding member desired. In the drawings the casing 23 of the branding member is shown as formed from a sheet of metal having its outer edge bent downward so as to provide a vertical flange 24. 25 designates an inner flange which is preferably made of a separate sheet of metal and soldered or otherwise secured to the sheet 23 so as to provide a continuous channel corresponding in shape to the brand or mark of ownership desired. In the space intervening

between the flanges 24, 25 are vertically arranged strips 26 which are secured to the sheet 23 so as to provide narrow channels 27, 28 (shown best in Fig. 3). The lower edges of the strips 26 preferably stop short of the lower edges of the flanges 24, 25 for a purpose which will be apparent from the description of the other elements hereinafter referred to.

The casing of the branding member thus far described as being composed of separate pieces of sheet metal could obviously be made of malleable iron or other forms of suitable metal and that the flanges 24, 25 and 26 in such case could obviously be cast integrally with the other parts of the casing. A foraminous partition 29 is arranged between and secured to the vertical strips 26 so as to provide a marking fluid distributing space 30 and a pad-holding space 31. The partition may be made of wire netting of fine mesh, or other like forms of foraminous metal, if desired, though for the purpose of minimizing the cost of manufacture and at the same time providing an effective brace for the strips 26, I preferably make the said partition of sheet metal formed with a plurality of small perforations 32 which equally distribute the marking fluid over the absorbent pad 33 arranged in the pad-holding space 31. The pad 33 is preferably made of heavy felt so as to be capable of absorbing a quantity of marking fluid and at the same time prevent it from becoming compressed to any appreciable extent by continued use of the device. The pad is provided with a plurality of perforations 34 which permit the marking fluid to circulate through the interior of the pad and thereby effect a more thorough saturation of the same. A thin pad 35 preferably of wool of lighter texture than the pad 33 is positioned below the pad 33 so as to hold the same in operative position. The pad 35 is preferably arranged so as to extend below the lower edge of the flanges 24—25 and has its edges 36 turned upward and clamped between the vertical strips 26 and the flanges 24—25. A plurality of ducts 37 extend from the distributing space 30 to a manifold connection 38. The branding member B is operatively connected with the container A by means of the valve C comprising a valve casing 39 having a threaded engagement at its opposite ends with the closure cap 12 and the manifold connection 38 respectively. 40 is a needle valve adapted to be screwed against the valve seat 41 as illustrated in Fig. 2, or which may be set to govern the flow of the marking fluid D to the absorbent pad of the branding member B.

In operation, the branding member is removed by unscrewing the manifold connection 38 from the valve casing 39. By opening the needle valve 40 and submerging the open end of the valve casing in a quantity of marking fluid, the desired quantity of fluid may be drawn into the container A by an upward movement of the piston 20. The opening 42 in the upper end of the cylinder is intended to prevent any compression of the atmosphere above the piston on the upward stroke. When the quantity of marking fluid sufficient to brand the desired number of sheep has been drawn into the container, the valve 40 is closed and the branding member B again screwed into operative position. The valve 40 is again opened and the marking fluid is fed to the absorbent pads of the branding member by means of pressure applied to the piston. The perforated partition 29 equally distributes the marking fluid over the absorbent pad 33. When the pad 33 becomes thoroughly saturated with the marking fluid, any pressure applied to the pad 35, as by pressing the branding member against an animal, will saturate the lighter pad 35 with the fluid absorbed by the pad 33. The perforation in the pad 33 also permits a certain portion of the marking fluid to be passed directly to the thin pad 35 in addition to permitting the pad 33 to become more thoroughly saturated. By this construction a thicker pad can be used and thereby minimize the worry of the animal due to the sudden blow delivered by the application of the branding member to the desired spot on the animal, as is usual in the operation of branding devices of the above type.

While I have described my invention in its preferred embodiment, it will be understood that certain modifications in structure might be made without departure from the spirit of my invention. Therefore, I do not wish to limit myself to the structure shown and described, except so far as certain limitations may appear in the appended claims.

I claim:

1. A sheep branding device comprising a hollow handle member providing a container for a marking fluid, a branding member readily detachable from said handle comprising a casing having a fluid distributing space communicating with said fluid container and provided with a perforated pad of heavy felt, and means for forcing the marking fluid from said fluid distributing space to said pad.

2. A sheep branding device comprising a hollow handle member providing a container for marking fluid, a branding member readily detachable from said handle comprising a casing having a fluid distributing space communicating with said fluid container and provided with a perforated pad of heavy felt adapted to be supplied with marking fluid from said fluid distributing space, and a second imperforated pad of absorbent material secured to said casing

and adapted to hold the first mentioned pad in operative position.

3. In a sheep branding device, the combination with a hollow handle member providing a container for a marking fluid, of a branding member detachably secured to said handle comprising a casing provided with flanges defining the shape of the brand desired, a foraminous partition extending across the space between said flanges to provide a marking fluid distributing space, means establishing communication between said distributing space and fluid container, a relatively thick pad fitted in the space between said flanges below said foraminous partition, and a relatively thin pad of absorbent material secured to said casing and providing a facing for said first mentioned pad.

4. In a sheep branding device, the combination with a hollow handle member providing a container for a marking fluid, of a branding member detachably secured to said handle comprising a casing provided with flanges defining the shape of the brand desired, a foraminous partition extending across the space between said flanges to provide a marking fluid distributing space, means establishing communication between said distributing space and fluid container, a relatively thick cushioning pad formed with perforations and fitted in the space between said flanges below said foraminous partition, a relatively thin imperforated felt pad secured to said casing and providing a facing for said first mentioned pad, and means for forcing the marking fluid from said distributing space to said pads.

5. In a sheep branding device, the combination with a hollow handle member providing a container for a marking fluid, of a branding member comprising a casing provided with a pair of downwardly projecting flanges providing a channel defining the contour of the brand desired, a foraminous partition extending across said channel and providing a fluid distributing space, a perforated absorbent pad arranged between said flanges and a second pad of absorbent material having its edges secured to the outer walls of said flanges.

6. In a sheep branding device, the combination with a hollow handle member providing a container for a marking fluid, of a branding device comprising a casing provided with a pair of downwardly projecting flanges providing a channel defining the contour of the brand desired, a foraminous partition extending across said channel and providing a fluid distributing space, a perforated absorbent pad arranged between said flanges, and a second pad of absorbent material extending under said perforated pad and having its edges secured to said flanges.

7. In a sheep branding device, the combination with a container for a marking fluid, of a branding member comprising a casing provided with a pair of downwardly projecting flanges, a perforated partition arranged horizontally between said flanges and providing a fluid distributing space, a perforated absorbent pad arranged between said flanges, a second pair of flanges arranged adjacent said first pair of flanges, an absorbent pad adapted to be clamped between said first and second pairs of flanges, and a manifold connection between said branding member and said container.

8. In a sheep branding device, the combination with a container for a marking fluid, of a branding member comprising a casing provided with a pair of downwardly projecting flanges, a perforated partition arranged horizontally between said flanges and providing a fluid distributing space, a perforated absorbent pad arranged between said flanges, a second pair of flanges arranged adjacent said first pair of flanges, a manifold connection between said branding member and said container, and a plurality of ducts leading from said connection to said fluid distributing space.

9. In a sheep branding device, the combination with a container for a marking fluid, of a branding member comprising a casing provided with a pair of downwardly projecting flanges, a perforated partition arranged horizontally between said flanges so as to provide a fluid distributing space, a perforated absorbent pad arranged below said partition and between said flanges, a second pair of flanges arranged adjacent said first pair of flanges, an absorbent pad extending under said first-named pad and having its edges clamped between said pairs of flanges, a manifold connection between said branding member and said container, a plurality of ducts leading from said container to said fluid distributing space, a shut-off valve interposed between said branding member and said container and a piston in said container adapted to force the marking fluid therefrom into contact with said absorbent pads.

PIERCE J. KELLY.