

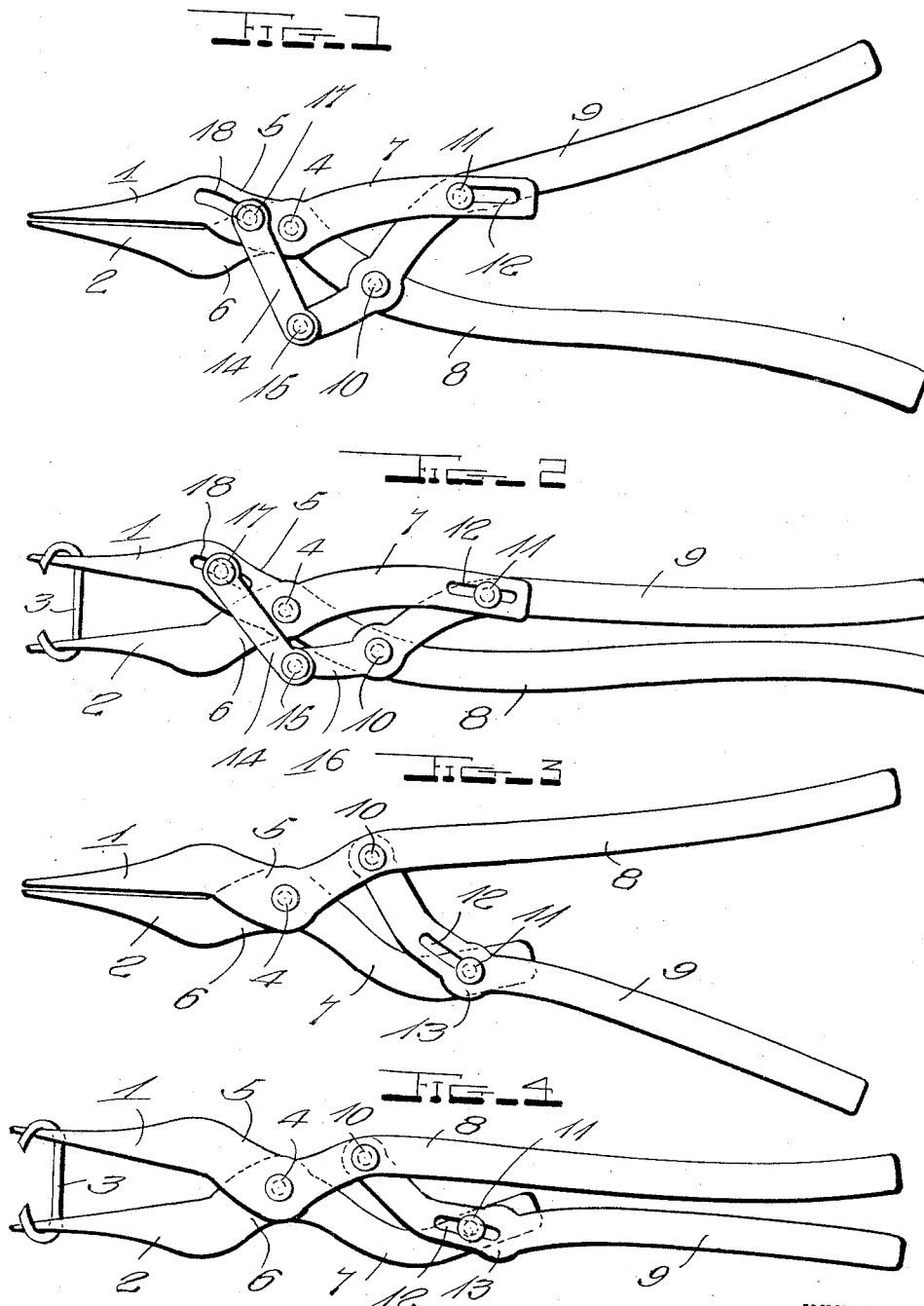
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RING REMOVING DEVICE

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RING REMOVING DEVICE

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2 Claims. (Cl. 128—330)

This invention relates to a ring removing device and while it is particularly adapted for use when removing a ring from the nose of a hog, it is to be understood that it is not limited to this use.

One object of the invention is to provide a device of this character by means of which a ring may be easily spread and removed from an opening formed through the cartilage of a hog's nose without tearing the cartilage. It will thus be seen that a ring may be temporarily applied to a hog's nose to prevent it from rooting while, at the same time, allowing the animal to eat potato vines and the like, the ring being easily removed by use of the removing device without injuring the animal's nose and leaving the nose in such condition that a ring may again be applied when desired.

Another object of the invention is to provide a tool of this character resembling a pair of pliers but so constructed that when pressure is applied to its handles, its jaws will be moved away from each other for expanding a ring through which the jaws are passed.

Another object of the invention is to provide a tool having the handle of one jaw appreciably shorter than the other and actuated by a lever pivoted to the long handle and having pivotal and sliding connection with the short handle.

Another object of the invention is to provide a tool wherein, in addition to providing a pivotal and sliding connection between the lever and the short handle, the forward end of the lever is pivoted to a link having pivotal and sliding connection with the jaw having the short handle, thus providing means for applying force to the jaw itself as well as to the handle and allowing a stiff ring to be easily forced open.

Another object of the invention is to provide a ring spreading tool which is simple in construction, easy to operate, and not likely to get out of order or become broken.

The invention is illustrated in the accompanying drawing, wherein:

Fig. 1 is a side elevation showing the jaws in closed position.

Fig. 2 is a view similar to Fig. 1, showing the jaws moved apart to spread a ring through which the jaws pass.

Fig. 3 is a view similar to Fig. 1, of a modified form of tool.

Fig. 4 is a view showing the tool of Fig. 3 with the jaws moved apart to spread a ring.

This improved ring spreading tool is intended for use when it is desired to spread a ring passing

through an opening formed in the cartilage of a hog's nose and has a pair of jaws 1 and 2 which taper forwardly toward their free ends so that they may be passed through a ring 3 until the ring fits tightly about the jaws. The jaws will then extend through the ring in engagement with diametrically opposed portions thereof and, when the jaws are moved away from each other, force exerted by the jaws will spread the ring, as shown in Fig. 2. The ends of the metal strand from which the ring is formed will then be spaced from each other a sufficient distance to allow the cartilage to pass between them and the ring may be removed without tearing the cartilage. Since the cartilage is not torn, another ring may be applied when desired.

The two jaws are pivoted in side by side engagement with each other by a pivot pin 4 which passes through their rear end portions 5 and 6 and from their rear ends extend handles 7 and 8. The handles are curved longitudinally and extend rearwardly in spaced relation to each other when the jaws are closed. The handle 7 is appreciably shorter than the handle 8 and has its rear end portion pivotally and slidably connected with a lever 9 which is pivoted to the handle 8 adjacent the forward end thereof by a pivot pin 10. A pin 11 serves to pivotally and slidably connect the lever with the short handle and may be carried by the lever and pass through a slot 12 formed in the handle longitudinally thereof, as shown in Figs. 1 and 2, or the pin may be carried by the handle 7 and pass through a slot formed in the lever, as shown in Figs. 3 and 4. When the slot is formed in the lever, the portion of the lever at the rear end of the slot is widened, as shown at 13, to reinforce the lever and prevent it from breaking when subjected to strain during use of the tool. When the handle 8 and lever 9 are grasped and forced toward each other, the handle 7 and the jaw 1 will be rocked about the pin 4 and the jaws 1 and 2 shifted apart and moved from closed position to open position. Since the jaws are passed through a ring when in closed position, movement of the jaws to open position will exert force to spread the ring, but the ring will remain in engagement with the jaws and not drop from the same as it is withdrawn from the hog's nose. In order that a ring formed of very stiff metal may be easily spread, a link 14 is provided. This link is pivoted by a pin 15 to the forward end portion 16 of the lever which projects forwardly from the handle 8 and the other end of the link carries a pin 17 which passes through a slot 18 formed in the rear por-

tion or shank 5 of the jaw 1, longitudinally thereof. When the handle 8 and lever 9 are forced toward each other, opening movement will be imparted to the jaw 1 by the link and its pin, as well as movement being imparted to the handle 7 by the pin 11 carried by the lever. Therefore, the jaw 1 will be very effectively moved in an opening direction and sufficient force exerted to easily spread a stiff ring.

10 Having thus described the invention, what is claimed is:

1. A ring removing tool comprising jaws pivoted in side by side relation to each other and having rearwardly extending handles integral with their rear ends, said handles extending rearwardly in diverging relation to each other when the jaws are in closed position, the handle of one jaw being shorter than the handle of the other jaw and formed with a longitudinally extending slot near its rear end, a lever pivoted in spaced relation to its front end to the longer handle adjacent the front end thereof and extending rearwardly in diverging relation to the longer handle and across the rear end portion of the shorter handle, a pin extending laterally from said lever and through the slot to slidably and pivotally connect the short handle with the lever, said lever having its front end portion projecting forwardly from

the longer handle, the rear portion of the jaw having the short handle being formed with a longitudinally extending slot, a link pivoted at its rear end to the front end of said lever, and a pin carried by the front end of said link and passing through the slot of said jaw to pivotally and slidably connect the link with the jaw.

2. A ring removing tool comprising jaws pivoted in side by side relation to each other and having rearwardly extending handles integral with their rear ends, said handles extending rearwardly in diverging relation to each other when the jaws are in closed position, the handle of one jaw being shorter than the handle of the other jaw, a lever pivoted in spaced relation to its front end to the longer handle adjacent the front end thereof and slidably and pivotally connected with the shorter handle for imparting movement thereto and swinging the jaw of the shorter handle away from the other jaw to open position when the lever is forced toward the longer jaw, and a link pivoted at one end to the forward end of the lever, and a pin and slot connection between the other end of the link and the rear portion of the jaw of the shorter handle to force said jaw toward open position when the lever is forced toward the longer handle.

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