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[54] **DISPOSABLE SPECULUM FOR ANIMALS**
1 Claim, 3 Drawing Figs.

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128/172
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ABSTRACT: A disposable speculum for animals formed with a rigid paper core having a metallic liner on the interior surface thereof for reflecting light and a coating of silicone material on the exterior surface thereof to facilitate usage.

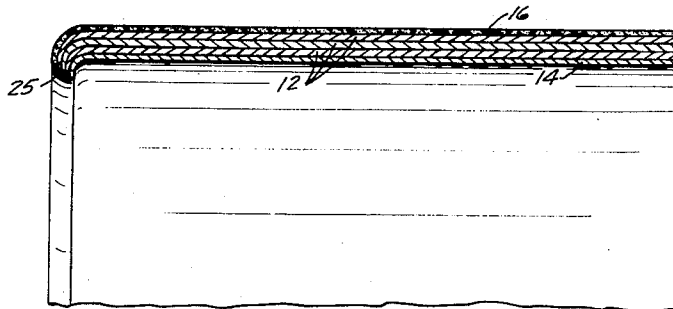


FIG. 1

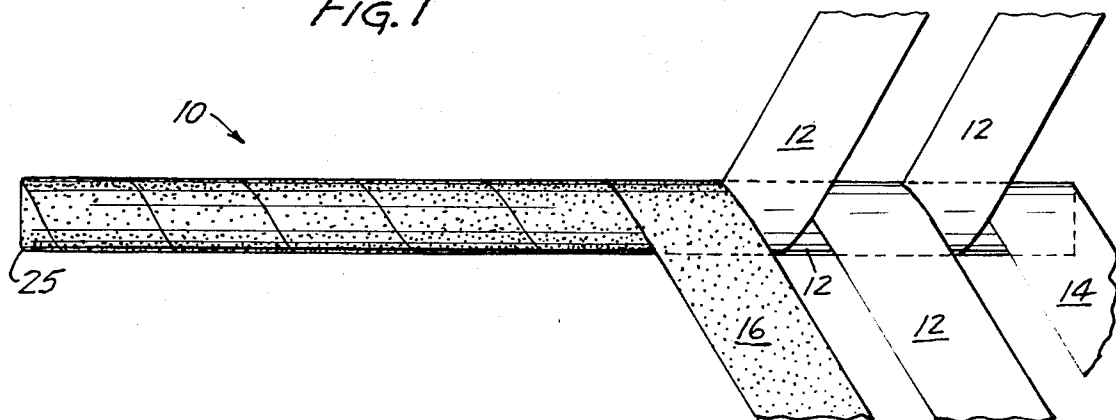


FIG. 2

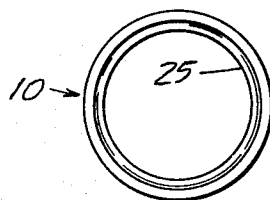
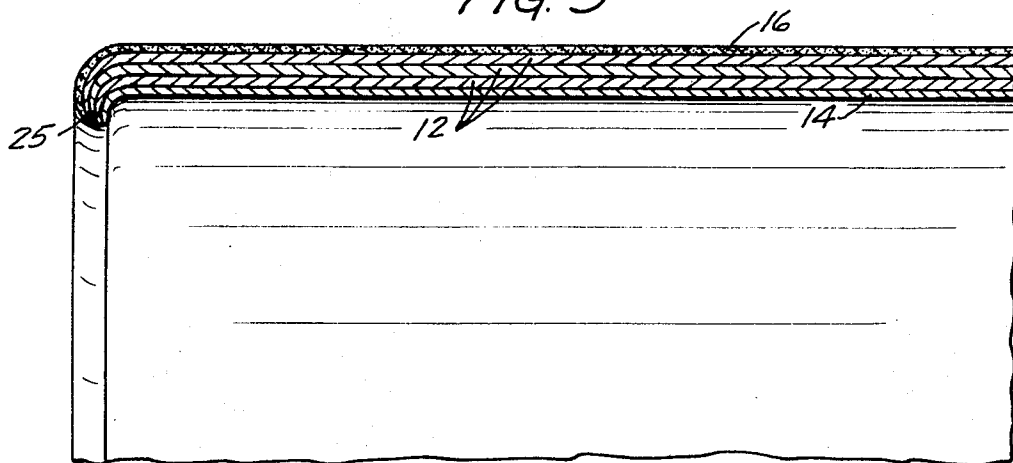


FIG. 3



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DISPOSABLE SPECULUM FOR ANIMALS

This invention relates to speculums and, more particularly to an improved disposable speculum particularly adapted for use on animals.

Speculums are well known and in use in the class of medical instrument used in the medical examination of humans and animals for the purpose of entering natural orifices of the body. In the past, such instruments have normally been made of a highly polished metal, plastics or glass and are generally tubular in construction while varying in shape depending upon the application thereof. In certain instances, the instruments have included rubber tips and disposable plastic covers. Generally where such instruments are used in the examination of humans, such examination takes place under conditions where equipment is available to maintain the instruments in a sanitary condition such that they may be permanent and reused. In the field of veterinary medicine, the problems of sanitation of such instrument are enhanced by the fact that the physical examinations normally do not take place at a site where sanitizing equipment is available and dangers arise from the use of the same instrument without proper cleaning between examinations. For this reason, the need for a disposable instrument of this type is present. Speculums have previously been made in a disposable form but have not been applicable to the field of veterinary medicine and particularly large animals because of the necessary strength, reflective characteristics and coatings to facilitate entrance into orifices of animals.

In the improved disposable speculum, an instrument is provided which will permit veterinary-type medical examination on animals in the field without the requirement of sterilizing equipment. The improved disposable speculum is an elongated tubular member particularly adapted for vaginal examination of large animals and is comprised of a rigid elongated tubular paper core having a metallic liner and a coating of silicone material in the exterior surface thereof with the metallic liner enabling the user to more effectively conduit the physical examination through improved visibility into the orifices examined. This disposable speculum, being of low cost, permits the user to dispose of the same after examination, eliminating the problem and the work involved in cleaning of instruments.

Therefore, it is the principal object of this invention to provide an improved disposable speculum.

Another object of this invention is to provide a speculum of this type particularly adapted for the examination of orifices in large animals.

A further object of this invention is to provide an improved disposable speculum for veterinary medicine which incorporates a metallic liner to facilitate visual examination of such animals.

A still further object of this invention is to provide an improved disposable speculum of this type which is relatively low in cost and easy to use.

These and other objects of this invention will become apparent from a reading of the attached description together with the drawings, wherein:

FIG. 1 is a side elevation view of the improved disposable speculum;

FIG. 2 is an end elevation view of the same; and

FIG. 3 is an enlarged section view of a portion of the

disposable speculum showing the construction of the same.

My improved disposable speculum is shown in the drawings, indicated generally at 10. It is an elongated tubular member having a paper core 12 formed by a plurality of layers of paper with a metallic or foil liner 14 on the interior surface of the same and a silicone coating 16 on the exterior surface of the same.

The core 10 is formed of either a continuous strip or a plurality of strips of paper which are wound on a form in a helical manner in a plurality of layers. Each layer has the direction of the helix opposing or extending in the opposite direction to the next adjacent layer on either side of the same so that the composite plurality of layers form a substantially rigid and strong tubular member. The inner surface or liner 14 is similarly a layer of foil which is also applied in a helical manner. In the construction of the tube, the core will be constructed on a mandrel or tubular member through a conventional winding procedure and the initial layer adjacent the mandrel may be the foil layer, either applied directly or as a foil with a paper backing as a first layer on the mandrel. Adjacent layers are held together in assembled relationship through suitable adhesives in the conventional manner and the outer layer with the silicone coating may be formed either by applying a final layer of paper wound in a helical manner, which layer would have a silicone impregnated surface or the entire tube would have applied thereto a silicone material to facilitate use of the speculum by reducing abrasive or frictional surfaces thereon and to reduce the absorptive qualities of the paper tube. One extremity of the tube is tapered and turned in a small amount, such as by rolling or bending, for the purpose of facilitating insertion of the tubular member or speculum into the natural orifices of a large animal for the purpose of medical examination thereof. Since the animals to be examined require relatively long tubular members for examination purposes, the foil provides a light-reflecting surface to facilitate visual inspection into the natural orifices and cavities of large animals. The improved disposable speculum is particularly adaptable for vaginal examination of large animals, such as horses and cows, and the length of the speculum will be in the order of 20 inches. The silicone or other friction-reducing and absorption-resistant surface facilitates insertion of the speculum into the orifice to be examined and the tapered and rolled or turned in extremity insures that no rough or sharp edges will be present on the speculum to injure or irritate the animal examined. With the examination complete, the speculum may be disposed of, eliminating the previously present problems of handling and carrying a soiled instrument and the subsequent work involved in cleaning of the same.

What is claimed is:

1. A disposable speculum for animals comprising, an elongated tubular member formed by a rigid paper core, said core including layers of paper in the form of overlapping helices with adjacent layers extending in opposite directions, a reflective liner in the form of a strip of reflective material positioned in the form of a helix on the interior of the layers of paper of the tubular member and attached thereto, and a coating of silicone material positioned on the exterior of the tubular member for reducing friction and providing an absorption-resistant surface thereto, one end of the tubular member having a tapered and inwardly curved surface.

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