The second instrument I wish to present to you makes this job a little easier. We obtained these cutting-edge tongs from a local veterinary supplier. One side of the pincer part of the tongs has a cutting edge, and with a squeeze and slight twist the nasal septum is punctured. The pincer part of the tongs also has a concave surface to allow you to slide the bull ring right over the tongs and makes it easier to put the screw in the ring. One can normally place a ring in a yearling bull on the end of a halter rope, as the control of the animal is increased by your grasp on the tongs.

The third instrument is a metal rod, 30 inches in length with a smooth wooden ball on each end. We use this instrument as an extension of one's arm in attempting to get a complete replacement of the prolapsed uterus. First, replace the prolapsed uterus and then by using this instrument attempt to complete the replacement. We have had no problems with excessive straining, reprolapsing, or the need for more than simple interrupted suturing of the vulva.

Use of a Large Cattle Trocar

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Use of the large cattle trocar is not original in our practice. It goes far back in veterinary medical history and I think its demise is unjustified. I was introduced to its use by one of my best freinds, a veterinarian licensed and practicing from 1903 to 1963.

The term "general practice" must have been coined to describe our practice and it carries on through the bovine portion of the operation. This means that we have all types of cattle operations with an assortment of owners ranging from the full-time professional cattleman to the part-time hobbyist who may be a production line worker in one of the local industries. The variety of methods concocted to overload the ruminant digestive system is mind-boggling and some of the facilities we find never cease to amaze me. If this presentation does no more than provide you an "out" when you are at your wit's end, then hopefully this time is not wasted.

The object of our attention is a large trocar utilizing a cannula nine inches long by seven-eights inch in diameter with a flange on one end. Holes are drilled in each ear of the flange in order to anchor the cannula to the skin after it is placed in the rumen.

The trocar is used as a safe, qucik, easy and fairly efficient method of removing excessive or toxic rumen contents. We use it in any type of rumen overload when results cannot be obtained by more conservative treatment. It is a very good substitute for rumenotomy in many cases. Considering the shock to the animal in major abdominal surgery, I feel it may be preferred course of action in many cases. A scalpel is used to make a two-inch horizontal incision low in the left flank, going through the skin and into but not through the muscle layers. Location of the incision

would be very near to the fold in the flank and a little anterior. The trocar with cannula is then thrust sharply into the rumen and withdrawn from the cannula. A halter, tail-hold, and sometimes a nose lead are the only restraints required.

The cannula can be moved in any direction in the rumen to aid in the expulsion of contents, whether gaseous, liquid or semi-solid. Directing the cannula forward, down and medially usually will remove the most fluid contents. Moving the cannula in and out with a kind of pumping action will facilitate the flow. Insert a stomach tube through the cannula and pump five gallons or more of water into the rumen; remove the stomach tube and allow fluid contents to escape. This procedure may be repeated as often as you feel necessary. We sometimes instruct the owner to instill water a few hours later with a hose from a hydrant. If the animal is not extremely toxic, it isn't necessary to devote a lot of time at this point-let the cow and the farmer worry about it.

It seems well to finish by pumping in your favorite compound of ruminatorics, antacids, detoxicants and laxatives. In toxic, acidotic or dehydrated animals we include intravenous fluid therapy depending on the conditions found.

The last thing we do is to suture the cannula to the skin with one-fourth inch umbilical tape. The cannula is to be left in place for a minimum of three days and probably should not be left over five days. The sutures are cut and the cannula withdrawn. No further treatment is necessary, except in fly time some fly spray or screw worm spray should be used occasionally. The hole into the rumen may require three weeks or so to close but will not cause trouble.

The greatest problem we have had is in delaying our decision too long before using the trocar. Needless to say, we don't save them all. We have used the trocar for twenty years and I can't remember a real complication caused by it. It is safe in advanced pregnancy—I have used it two or three times on cows that calved normally while the cannula was in place.

We include in our fee a five dollar deposit on the cannula to encourage the owner to return it.

I think you will especially appreciate this instrument when faced with a barn full of foundered cattle on a busy day or a cold night or, better yet, a barn full of cattle and no barn. Thank you.

A Successful Treatment for Cows with Clinical Signs of Fatty Liver Syndrome

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The fatty liver syndrome (FLS) of dairy cows is similar to some other bovine nutritional problems in that the incidence of the disorder is reflected by economic conditions at play in the cattle industry. Reports of the condition appear to be again on the in-