2 to 4lb. of molasses in a quart of warm water. To stimulate bowel action further to remove waste products, the laxative should be followed by stimulant medicine. A powder composed of 1 dram of nux vomica and 3 drams of ammonium carbonate is shaken up in a pint of water and given as a drench night and morning. The affected animal should be kept warm and dry, well bedded down, given a laxative diet of greenfeed, be regularly watered, and changed from side to side to prevent sores.

Preventive measures are the same as for milk fever.

## Temporary Sterility

Cows suffering from temporary sterility return repeatedly to the bull, but before concluding that this complaint is prevalent in the herd it is advisable to make sure that the trouble is not due to sterility of the bull. A laboratory test of the bull's semen should be obtained if there is any possibility of a new bull being required, but if more than a few cows are holding, it may be assumed that the bull is all right. The failure of cows to hold may also be due to septic inflammation of the passage leading to the womb, which is indicated by numbers of very small abscesses in the passage. These can be treated effectively with antiseptic solutions, but veterinary advice is essential.

If cows hold to the bull for 2 to 3 months and then return, and particularly if whitish discharges or foeti 2 to 3in. long are observed, a disease known as *Trichomoniasis* may be the cause. This is a serious condition, and veterinary advice should be sought at once.

The commonest cause of temporary sterility in dairy cows, however, is nutritional, and the general lines of prevention and treatment suggested earlier in this article should be followed. Except for treatment of septic inflammation of the passage, irrigation of the vaginal passage of the cow is useless. Except for a short period after calving liquids poured into the vaginal passage cannot enter the womb unless special instruments are used, and in any case they would not be effective and might do much harm.

## Mastitis

Symptoms of mastitis are abnormal milk and heat, pain, and swelling in the udder. If the trouble is acute, the cow's whole system may become affected and the animal may die.

The immediate cause is injury to or weakness in the udder, which allows the entry of germs.

The "sulpha" drugs give good results in the treatment of mastitis, but veterinary advice should be obtained.

First aid should consist of hot fomentations to the udder, constant stripping of the affected quarter or quarters, and massage of the affected quarters with camphorated oil. If the udder is very hot and swollen, it should be suspended in a clean cloth with holes cut for the teats, the corners of the cloth being attached to cords tied over the cow's back. A drench of 10 to 12oz. of Epsom-salt and 1oz. of ginger in ½ gallon of water may be given if there is much inflammation, but not if veterinary advice indicates that "sulpha" drugs should be used.

As the disease may be carried rapidly from cow to cow by milking machine cups or milker's hands, affected cows should be milked last and teat-cups and hands washed in standard strength solutions of chlorine antiseptic. Mastitis milk should be rendered harmless by the addition of strong antiseptic before being thrown away.

To prevent the introduction of mastitis into their herds farmers buying stock should inspect possible purchases thoroughly for evidence of the disease, and should avoid animals with blind teats or weak quarters.

Correct use of milking machines according to makers' instructions and the Department of Agriculture's Bulletin No. 207, "The Care of Milking Machines," will minimise the possibility of injury to udders and teats. Vacuum pressures should be low and the teat-cups removed immediately the milk flow stops. Cows may be milked in groups with pressures adjusted to give the best results from each group.

Milking cows, particularly when their udders are full, should never move out of a slow walk. The dragging of udders in deep mud is likely to cause injury and contamination which are conducive to mastitis.

All cows should be dehorned to prevent injury due to fighting.

Cows should be trained to be handled and led by a halter, so that when they have to be examined or treated for an ailment struggling or the use of force is avoided.

Special precautions against mastitis are necessary if cowpox breaks out, and veterinary advice should be sought. Any other breaks or sores on the teats should be treated daily with a suitable antiseptic ointment.

**Milking times must be absolutely regular if strain on the udder during long intervals between milking is to be avoided.**

Teats should be carefully dried after milking and the milking parts of the cow properly cleansed before milking.

Teat dilators and milk siphons should never be used, as their insertion by unskilled operators could easily cause injury leading to mastitis.

## Bloat

Bloat or tympany is caused by the formation of large quantities of gas in a cow's paunch, resulting in great distension, acute discomfort, difficulty in breathing, and death. It is possible that in some cases the poison of the gases and not the pressure they exert is the cause of death.

Immediate treatment is essential. A short thick piece of stick tied across the mouth like a bit or a dab of Stockholm tar on the back of the tongue is an old but quite effective remedy if the cow is only mildly blown. A dose of 2oz. turpentine shaken up in a bottle of milk is good treatment. A stick tied like a bit in the mouth and a long milking rubber well lubricated with raw linseed or olive oil passed very gently down the gullet may give relief. Another treatment is to knead or massage the left side of the belly upward with closed fists for 10 to 30 minutes.

After immediate treatment of a cow which has become blown a purgative drench of 10 to 12oz. of Epsom-salt and 1oz. of ginger in ½ gallon of water should be given.

The operation known as "tapping" is a last resort in the treatment of bloat. A trocar and canula are necessary for making the entry to the cow's stomach midway between the last rib and the hook bone and a hand's breadth out from the outer part of the backbone. Owners of properties on which bloat is common should keep these instruments handy during flush growth periods. The equipment should be sterilised by boiling before and after operations.

Bloat occurs generally when hungry cows are given free run on young soft grass and clover, and the trouble appears to be more prevalent on certain clovers and soil types. When the night paddock becomes bare and cows are turned out hungry after the morning milking bloat risks increase.

Prevention should therefore consist of feeding out hay before putting hungry cows on to young grass, and the grazing of mature pasture before young grass so that excessive quantities of young, lush feed are not eaten. Changes in feeding, too, should be spread over several days.

A cow which bloats frequently when other cows in the herd on similar feed are unaffected may have tubercular glands which swell and press on the gullet, partially closing it. If such a condition is suspected, it would be wise to have a veterinarian make a tuberculin test.