

this we mean placing the medicine under the skin, from whence it is rapidly absorbed into the blood, and thus produces its effects very rapidly. To physic a horse, by a physic ball given by the mouth, takes anywhere from eighteen to thirty hours, but, by giving a hypodermic injection of eserine and pilocarpine the same effect is produced in about fifteen minutes.

Of course, everyone knows that morphine is administered in this way, and in a few minutes the patient — be it man or beast — is free from pain. This is also the most satisfactory way of poisoning an animal, and this sentence tells me that I should say it is essential that only certain drugs be used. They, in most cases, are known as alkaloids and are extremely strong poisons, so strong that an apparently trifling variation in the dose is sufficient to produce the most undesirable effects. For this reason they should not be used, but by the professional. If an improper drug be used hypodermically or if an unclean syringe be used an abscess may be the result. Unclean, in the last sentence, refers mainly to freedom from germs.

This is the method we use in testing horses with mallein for glanders and cattle with tuberculin for tuberculosis. The new school of practitioners who follow Pasteur, with his treatment for hydrophobia, and the still more recent ones who have found or are finding one serum or antitoxin to counteract the poison of disease germs, largely or mainly, use this method :

#### RECTUM

The rectum is the last portion of the intestine. Very little absorption takes place in it so that we can give but few medicines effectually here. Still, some will act well. It may be used in cases, where, for any reason, the mouth cannot be used, or when the stomach will not retain the medicine. The rule to be observed is this : A small dose will be retained but a large dose will be ejected. If the horse cannot swallow, say in sunstroke, a dose of alcohol or other stimulants will be absorbed if placed here. Again, if the animal cannot eat, he may often be kept alive by injecting small doses of liquid food into the rectum, but if a large quantity be placed in it will be thrown out.

But we use this part for a very different purpose. This is the seat of the "pin-worms" of the horse. Then by throwing up from a quart to a gallon of vermifuge (tobacco, quassia, etc.) we may clear these away without needlessly disturbing the whole system. Again, it often happens that when a horse is constipated, the whole bowel is more or less torpid, or still, but if we can cause the last part, the rectum, to move, the wavelike movement will travel along the whole. For this reason we inject, say, a gallon of warm water. This not only brings away the manure collected in the rectum, but causes all the intestines to move and largely assists the action of medicines given by the mouth.

These rectal injections are properly termed enemas or enemata, but were formerly called clysters. Of course, they may be repeated as often as necessary or desired. Personally, I prefer to use clean water for the first, and either slightly salt or soapy water afterwards.

To inject these, I use a pump, but the same effect may be obtained by using about four feet of  $\frac{1}{2}$ -inch rubber garden hose with a ten-cent funnel in one end. The free end is inserted, the funnel raised, the fluid poured in, and this finds its way inside by gravitation and the pressure of the atmosphere, the higher the funnel is raised the quicker will be the flow. I prefer this on every ground to the "veterinary" syringe sold for this purpose, but this latter instrument is useful when the amount to be injected is small, and desirous of being retained.

About the temperature of these enemas but little need be said. The temperature of the horse is about 100, a little above, or a little below, and the fluid thrown up should not be far from this. There is one exception to this. In the case of sunstroke it may be necessary to produce a shock to the system, and this can often be done by injecting ice cold water. We sometimes mix up a drug with cocoa-butter, make it into a conical mass, and insert it into the rectum, especially, of the dog. We term this a suppository and it forms a nice way of treating piles, among other ailments.

#### URINO-GENITAL ORGANS

We never use this method except for local discharges, say after parturition, inflammation of the womb, in the rare cases of cystitis or inflammation of the bladder, leucorrhoea, or "whites" in the mare, and so on.

The instruments I have just described would be the ones to use.

#### BLOOD

This method of administering drugs has practically become extinct. The hypodermic method answers the same purpose and is free from its dangers. I formerly frequently saw barium chloride given in this way to act as a quick cathartic. In some cases it acted well and quickly, but in other cases, precisely similar to all appearances it produced almost instant death. The drug was administered by the hypodermic syringe, but was placed in the blood vessels (jugular vein, for preference) instead of in the tissues under the skin. At times, when using this method, blood clots would be formed and cause serious trouble. Or again, bubbles of air would enter the blood stream and the result be alarming. No, we certainly have no desire to bring this method into use again.

## STOCK

### Condensed Milk Problem in England.

(OUR ENGLISH CORRESPONDENCE)

The British Dairy Farmers' Association has been investigating condensed milk from various makers, all foreign, and their chemist, Mr. Lloyd, has issued an interesting report. Twenty samples were tested, of which five were of whole milk, and the balance of separated milk. Practically one-half of the nutriment consisted of added sugar which works out at a cost of 5d. per pound to the consumer — a very high price in England. In the separated milk samples only small percentages of albumen and fat were found, and this lack of nutriment, combined with the excess of sugar, renders such milk quite unfit for infants.

So far as condensed skimmed milk is concerned the industry would seem to be a means of enabling foreign countries to dump or get rid of their waste product in our markets, and at our expense. This state of things would not be possible were it not for the ignorance of the people who use the material, and the failure of the press to instruct and warn women against the evil effects which must arise from feeding children on this semi-nutritious substance. The claim is frequently made that condensed milks are pure and free from bacteria. Such was not found to be the case. A number of samples showed the presence of bacteria, and this is another serious aspect of the matter.

Mr. Lloyd concludes the report : "The more I study condensed machine skimmed milk the more convinced I am that the legislature ought to insist on every tin being marked in large letters 'Unfit for Infants.'"

It is only fair to add that some brands are so marked, but the stringent regulations imposed on home milk producers ought, in common fairness, to be made applicable to foreign condensed milks.

#### SITUATION IN CEREALS

The cereal year ended on August 31st, and it is interesting to compare the imports and prices with previous years. In the year 1908-9 imports of wheat and flour (the latter being arrived at by adding 28 per cent. to its weight to allow for loss in milling) were equivalent to 25,281,871 quarters of wheat, valued at £48,622,040 — an average per quarter of 38s. 5½d. The quantity was smaller than in any of the four preceding years, but the value was greater than ever before. The advance was 2s. 9d. per quarter over the previous year, and 10s. over 1899-1900.

An instructive feature is the way flour imports have decreased of late years, increased home production having largely displaced foreign flour. A few years ago British millers could not have ground the flour needed, but they can do so now, and there are many finely equipped mills. American flour shipments used to be large, but in August of this year they amounted to only 295,000 sacks. The total imports of flour for the cereal year were 4,368,000 sacks, against 5,476,000 sacks in the previous year.

Imports of barley for the year were 6,081,000 qrs., against 4,988,000 qrs. the previous season. Average imports of barley are about 6,000,000 qrs. Imports of oats were 5,667,000 qrs. against 4,725,000 qrs.; and of maize 8,981,000 qrs. against 9,182,000 qrs. in the previous year.

The weather has been distinctly better for harvesting, and great progress has been made,

though a much longer settled period will be necessary before the bulk of the cereals are safe. Indications now point to a wheat crop of about average dimensions. Wheat is being harvested with fair freedom, but farmers are disappointed at the rather rapid fall in prices for new wheat. Present prices are from 33s. to 36s. per quarter, which is about 3s. per quarter more than at the same time last year, though much lower than recent prices.

#### BIRMINGHAM SALE

Many prominent Shorthorn breeders were represented at the 56th annual show and sale at Birmingham. The entries numbered 280, 142 bulls and 138 cows and heifers, but the quality was distinctly below the average. A feature is that the reserve price of any animal must not exceed 21gs. In a class of 80 cows, exceeding three years of age, the first prize was taken by G. Harrison's fine red and white Highland winner, "Montrose Wonder."

Martinez De Hoz's handsome level bull "Royal Bank" won first place in the old bull class, though he is but 19 months old. The young bull class under 12 months, brought the closest competition of the show. R. R. Rothwell's "Harlequin," a nice roan, took first honors.

At the sale prices for cows and heifers were disappointing, the best price being 41gs. The demand for bulls was a little better, though bidding was far from brisk. The top figure was 100gs. for the second prize bull, an excellent red animal from C. Spencer's herd.

#### CARDIFF HORSE SHOW

The Cardiff Horse Show ranks as one of the best in the country and this year's show was a decided success. Some well known exhibitors were represented.

The blue riband in the Hunters, four-year-old class, was taken by John Drage's chestnut gelding, "John O'Gaunt," and Mr. Hinchliffe's famous "Broadwood" was first in the middleweight class. In Hackneys, 13.2-14.2 hands, the coveted blue riband fell to Wm. Foster's "Mel Valley Master Key," and Mr. Foster also took first honors in the harness class, mare or gelding, 13.2-14.2 hands, with "Mel Valley's Tissington Belief."

#### DERBYSHIRE SHOW

The Derbyshire Agricultural Show has fallen on evil days of late years, rain marring the proceedings, and this year's show was no exception. A good show was gotten together, not only in horses, cattle and sheep, but of other good features. Shires were as usual exceptionally strong in numbers and quality, and with Shorthorns were the outstanding feature. The Shire gold medal was won by a handsome mare, Mr. Schwabe's "Mayflower." The Duke of Portland won in the open class for bulls, two to five years old, with a good serviceable animal, "Village Diamond." Sheep were fewer than usual, but pigs were a capital section this year. Surely future fixtures will have better weather conditions if deserts count for anything.

#### BEEF TRUST QUESTION

The "Beef Trust" question has again been the subject of question in parliament. It has been claimed that the number of foreign and native cattle available for slaughter is diminishing, and in consequence hides and other by-products are rising in price. In answering, fewer cattle supplies were denied, though rising prices were acknowledged.

Regarding the recent issue of £11,300,000 of new capital by the American meat companies said to be for use in further controlling Argentine supplies, the answer made was that the government were giving earnest attention to the matter, but were not prepared to make any statement at this time.

#### SUCCESSFUL LINCOLN SALE

The well known flock of Lincoln shearing rams, bred by S. Ward of Sleaford, were sold at auction recently, and many buyers were present from the continent and South America. Eighty rams were offered and all sold at the fine average of £20 17s. 7½d.

There was a long duel for the best of the flock between Mr. Nelson, of Rigby, and Henry Dudding. The former finally paid 135gs. for the animal for export to South America. Other fine rams sold for from 30 to 90gs., and most of the prominent breeders were buyers. The total of the sale was £1,670 11s.

\* \* \*

Messrs. John Thornton & Co. sold at Blythwood the whole of Lord Blyth's Southdowns and most of the pedigree Jerseys. There was a capital attendance in spite of bad weather, and

Octol

good  
for 1  
Gern

Th  
the A  
the 1  
nine  
were  
18s.  
avera  
those  
man  
for 1  
F. M  
hand

Th  
been  
Crew  
the c  
many  
were  
on th  
of the  
Roya  
patch  
"Polo  
the y  
ley,"

Eig  
bred  
establ  
Provi  
Huroi  
ronto,  
and c  
east.  
instan  
tion,  
of Ag  
plaint  
Sheep  
confir  
of pec  
vanta  
a larg  
Wit  
provir  
breede  
separa  
Domi  
nation  
cordar  
breede  
corpor  
somet  
busine