siderably. However, the nearer the transmitter, the louder is the signal. Therefore, if the pilot hits the beam head on near the center, then starts to drop, and, as he does so, approaches closer to the field, the signal will remain of the same strength, because the approach to the transmitter compensates for the greater distance from the center of the beam.

The curve along which the signal maintains a constant strength is just about the same as the best landing curve. A meter on the instrument board indicates the signal strength, and is adjusted so that the pointer is at the center when the pilot follows the proper landing curve. It indicates either "too high" or "too low" if he departs from the right direction.

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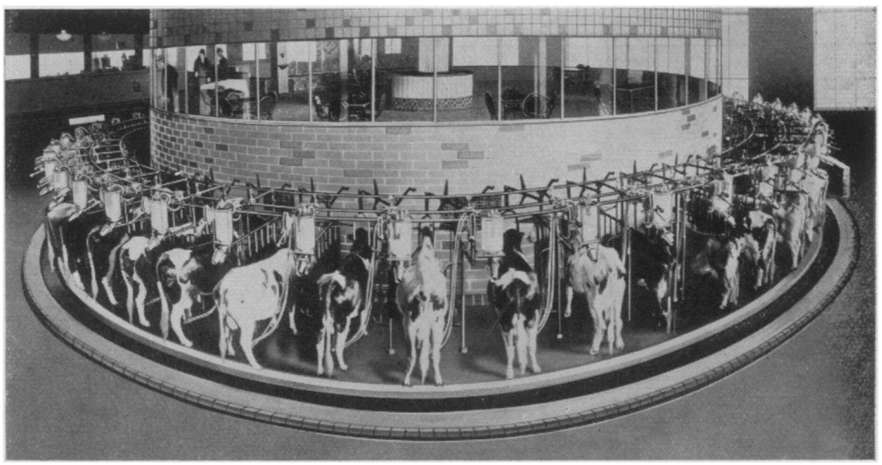

MECHANICAL MILKMAID MILKS FIFTY COWS

This rotolactor gives each cow a shower bath and relieves the cow of her milk automatically. There are fifty milking stalls on the sixty-foot revolving table.

AGRICULTURE

Rotary Milking Machine Brings Factory Methods to Farm

New Invention, Only One of Which Has Been Made, Milks 1800 Cows Three Times in Eight-Hour Day

THE dairy farm has joined the industrial revolution and now cows are bathed, relieved of their milk and sent back to their barns by automatic machinery that resembles the constantly moving assembly line of a large automobile factory.

A rotary combine milker or "rotolactor" just put in commercial use for certified milk production at the Walker-Gordon Laboratories farm or "milk factory" near Plainsboro, N. J., milks fifty cows simultaneously with less cost, greater speed and less danger of contamination of milk than the old method of individual milking practiced for centuries.

Upon a sixty foot circular platform there are fifty milking stalls. Each cow in turn steps upon the moving platform into a stall, where she is held in place by an automatically closed stanchion. As the platform slowly rotates, the cow receives an automatic warm water shower bath while above her the milking machine and milk jar of her stall is being cleaned and sterilized by machinery. Next the cow receives the attention of the attendant whose sole duty consists of drying the udders with individual sterilized towels. Next the cow is inspected by an expert hand milker who merely starts the milking process, which is accomplished by milking machines.

Just 12½ minutes after the cow steps on the milking merry-go-round the milking is complete, the cow is automatically released to walk back to her barn for a dinner of special dehydrated alfalfa and other feeds to give a balanced ration. The jar containing her milk automatically empties into a weighing and recording device and flows through pipe lines leading to the bottling plant.

Under this new system the cow goes to the milking machines instead of the milker visiting the cow. Even this walk that the cow must take single file through the runways leading to and from the special rotolactor building contributes to her health. For these walks for her milkings three times daily give her just the amount of exercise she needs.

Under this new system the cow barns become living and dining quarters exclusively and milking is done under the most hygienic conditions in the tiled rotolactor room which is fed with conditioned air.

In an eight hour day of continuous operation the rotolactor when put into full time operation will milk some 1800 cows three times daily. At present there is only one rotolactor in existence, designed and perfected by the staff of the Walker-Gordon Laboratories farm under the direction of Henry W. Jeffers, president. Studies of feed production, both scientific and economic, and nutritional studies of the milk are among the extensive research projects under the direction of Dr. H. E. Van Norman of the Borden Research Foundation, of which the Walker-Gordon Laboratories are a part. These other studies supplement the development of automatic dairying machinery like the rotolactor.

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PUBLIC HEALTH

Car Sickness Less Common

POOR vision makes you more likely to get sick when riding on cars or in automobiles, although car sickness is based on irritation of that part of your ears known as the labyrinth, Dr. J. E. Lebensohn has just reported in the *Archives of Ophthalmology.* This distressing condition is becoming less common, however, as a result of smoother roads, easier riding cars and automobiles.

People who have faulty vision or eye muscle balance are more easily nauseated and have a digestive tract especially susceptible to further depressing influences. An empty stomach is particularly sensitive, so it is best not to fast when traveling. The visual disturbances should be corrected, Dr. Lebensohn advised.

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