



Fig. 3.—Milk-room of shed shown on page 217. Floor built up to floor level of delivery truck, and roof extended to provide cover for truck. Note vertical lining.

shed that it is less draughty and much more comfortable to work in than the older type, and since it is all under one roof the whole of the floor is easily kept clean. A similar race can be included in the older plan if desired without altering the bails.

### Milk Room

Where milking-machines and a separator are used the positions of the respective units in the milk-room are shown in the plan. These positions should on no account be altered if the maximum efficiency is to be obtained. If the shed is operated with electric power the motor can be fixed to the wall overhead, on a block of concrete raised from the floor, or to a shelf stayed out from the wall.

The type of rotary vacuum pump now being manufactured occupies a small space and can be fixed to the wall. The most important point to remember when erecting a milking-machine is that the distance from releaser to vacuum pump in any plant need not exceed 4ft. 6in. (Fig. 4). A saving can therefore be made by adopting right methods, as a minimum amount of piping is used if the vacuum tank is erected close to the vacuum pump. The vacuum tank should be fitted as close to the vacuum pump as possible so that all the vacuum piping can be flushed. The tank should be of sufficient capacity to hold the water used in flushing the whole system. If the vacuum tank is fitted with a drainage flap and placed at a reasonable height from the floor the washing of the machine is facilitated, and the tank can be quickly emptied by breaking the vacuum at any part of the machine, this will release the boiling water which has been carried over into the tank. The vacuum can then be again raised and the washing completed.

The electric motor, a vacuum pump, or a vacuum tank are not in themselves a source of contamination to milk or cream, but may become so if neglected, so that these units should be so installed as to be conveniently cleaned. The milk-vat can be suspended from the roof with iron rods, or supported upon a pipe stand set into the floor, or upon hinged wall-brackets. A convenient milk-vat measures 3ft. by 3ft. by 10in. deep, with a fall and a tap towards one corner. The tap should have an extended delivery pipe which can be uncoupled when the milk-vat is full. This will allow the separator to be cleaned

during the milking in the flush months of the season. A separator which is too large causes a loss of butterfat in the spring and autumn owing to the milk getting cold before there is sufficient in the vat to warrant starting the separator. Where a pipe stand is used to support this type of milk-vat an adjustable bar or two hooks attached to the stand on the side nearest the door, as shown on the plan, will serve to support a milk-cooler, and if the vat is given a quarter turn the tap will be brought into the right position to deliver the milk on to the cooler.

A glazed drain-pipe of a suitable size set into the concrete floor and filled with concrete makes an excellent stand for a separator. It will be noticed that in the plan a small fixed window is shown in the draught-proof wall. This is recommended, as it has been found to be a decided advantage in the running of the plant and for carrying out herd-testing work, &c.

Where whole milk is being supplied the milk-room can be used as a milk-house, provided that it is kept in a hygienic condition. This avoids the necessity for a milkstand, but the contour of the ground may require the roadway for the delivery truck to be excavated to the doorway (Fig. 1) or a sliding door can be provided in either of the outer walls of the milk-room to suit the fall of the ground. This is being practised by some dairymen who have proved over a period of years that good milk with a low bacterial count can be delivered from a milk-room so constructed. On a level site, or where a sunken ramp is unsuitable, a milk-lift can be used to raise the milk for cooling purposes.



Fig. 4.—Separator-room for cream-supply dairy, showing vacuum pump on wall, vacuum tank close to pump, suspended milk vat and hopper of skim-milk pump. Base of 4 ft. of concrete under walls.