may wish to put up his tent on one of the many free public camp grounds, where wood and water are to be had for the taking. He may desire to live at one of the many resorts, a cabin camp, or a hotel. He may wish to secure a permit and build a cabin where he can be alone, or perhaps the younger members of the family may join one of the numerous organizations which operate summer camps on the national forests. (Fig. 11.)

The free public camp grounds meet the greatest demand since their use involves a minimum of effort and expense. In fact, the only cost is that of getting to the camp and back home. Restrictions are few, pertaining only to fire and sanitation. These free camp grounds are laid out in desirable locations, and in many cases simple improvements such as water systems, cheap tables, and sanitary conveniences are provided. If actual use may be taken as a measure of their service, these national-forest camps are filling a clearly expressed need as refuges from the dusty heat of the lower farming lands.

F. V. HORTON, *Forest Service.*

CATTLE-DIPPING Vats of Octagonal Shape Meet with Success in Nevada

Constructed first as an experiment, an octagonal cattle-dipping vat, built in Elko County, Nev., during 1931, proved so successful that stockmen of the county promptly built several more vats of the same type. The dipping vat customarily used in eradicating cattle scabies

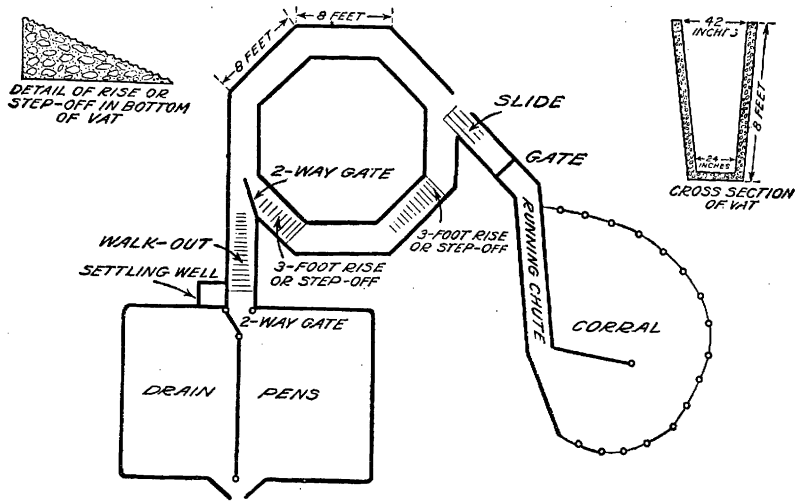

FIGURE 12.—Plan of octagonal dipping vat

and several other parasitic diseases of livestock is a long trench or trough commonly built of concrete, wood, or metal, containing a medicated solution through which animals are made to swim. The movement of animals through the vat is controlled by men stationed at the sides of the vat, who operate gates and also push each animal entirely under the surface at least once, so that the solution may reach parasites on the head as well as on other parts of the body.

The octagonal type of vat, though more expensive to build than a straight one, has proved to possess several advantages that more than offset the additional construction cost when large numbers of animals are to be dipped. The main points of superiority are: (1) The dipping operation is more thorough; (2) it is almost automatic; (3) it is easier on the cattle than the old method; and (4) it permits a larger number of cattle to be dipped without the vat being recharged with fresh solution.

The octagonal vat consists of an 8-sided trench made preferably of concrete and so arranged that the animal must swim around for the required time of dipping, usually two minutes, before being released.

FIGURE 13.—General view of the drain pens, dipping vat, and corrals

In this way the usual fretting caused by the necessary waiting in a straight-trench vat is prevented. A submerged ledge at the entrance causes each animal to duck itself on entering the vat and two other step-offs or drops (fig. 12) automatically give additional duckings. The outside circumference of the octagonal vat here described and illustrated is 64 feet, and the dip capacity is approximately 5,000 gallons. Such a vat will hold 8 mature cattle or 10 yearlings at one time. As many as 180 cattle have been dipped in an hour, and in one instance 819 cattle were dipped in five hours. Since several hundred thousand dippings are frequently necessary in eradicating cattle scabies from a single county, large-scale equipment materially expedites the work. The octagonal vat is not recommended, however, when fewer than 3,000 head of cattle are to be dipped.

Dipping Cattle Affected with Scabies

The new type of vat is especially convenient in dipping cattle seriously affected with scabies. Such animals should be immersed about four minutes. When this length of immersion is necessary, the exit gate is kept closed until the animals have made enough trips around the vat for the required time to elapse. The gate is then opened and the animals enter the walkout which leads to the drain pen. (Figs. 13 and 14.)

The cost of an octagonal vat, including a steam boiler for heating the dipping solution, has ranged from $1,500 to $1,800. With one exception these figures represent contract jobs and in most cases include corrals for holding the cattle before and after dipping.

An unusual feature of one vat is that the dipping fluid was heated with spring water warmed by an extinct geyser. A 2-inch pipe leading from the spring extends around the vat a few inches from the bottom,

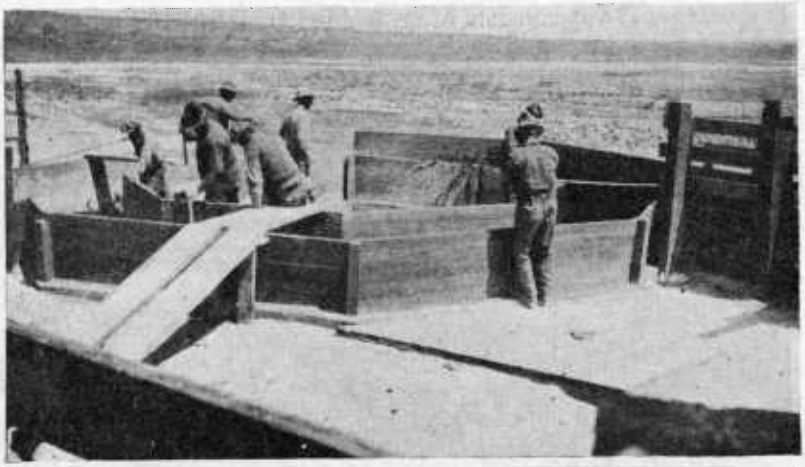

FIGURE 14.—An octagonal dipping vat in operation. The attendants need only to keep the animals moving while they are in the vat

carrying water with a temperature of 128° F. This temperature is sufficient to maintain the dipping fluid at the desired uniform temperature of 102°. This method of heating the fluid saved the cost of a heating plant and the cost of fuel for heating the fluid during each operation.

L. C. BUTTERFIELD, *Bureau of Animal Industry.*

CHEESE Production Is Still Largely Confined to a Few Areas in U. S.

Cheese production in the United States, like the production of many other agricultural products, is very largely confined to certain definite areas. In these areas it appears that the climate, soil, and other natural advantages, including the inclinations of the agricultural producers, are especially favorable to cheese production. Originally the cheese industry was localized in New York, Wisconsin, and Ohio. New York became famous for the flat and twin styles of American Cheddar cheese which to-day are referred to as "State Flats" and "State Twins" in many of the country's leading cheese markets. The Swiss-cheese industry has been extensively developed in Green County, Wis., and in parts of Ohio, with the result that Monroe, Wis., is known far and wide as the "Swiss cheese capital" of the United States. Brick and Limburger cheese factories were located in Dodge County, Wis., whereas the eastern, southwestern, and northwestern counties of that State produced principally an American Cheddar type of cheese. In recent years production of various Italian varieties of cheese has developed in California, whereas New York has continued to be the leading State in production of cream and Neufchatel cheese.