

Every square mile of land in Great Britain and Ireland has to support 290 persons, and in Germany 216 persons. Every square mile in the United States has to support only 14 persons.

The peace of Europe is officially declared to be secure, but it is a costly peace, the naval and military budgets of the European States amounting this year to the stupendous total of \$1,400,000,000.

All the Hohenzollerns are put to learn a trade in their boyhood. The new Emperor of Germany learned to be a cabinetmaker, and his son, the Crown Prince, was an apprenticed "devil" in a German printing office.

Most of the depositors in the largest saving institution in Philadelphia are women, and an authority in such matters asserts that by far the greatest share of all the invested capital in Philadelphia held in trust belongs to women.

Says an imaginative statistician: "If Texas were a circular lake and France a circular island, the island could be anchored centrally in the lake out of sight of land, twenty-two miles from any point of the encircling shore."

A movement has been started by the farmers of Kansas, looking to the organization of a Farmers' Trust, to include farmers, stock-raisers, and feeders of the Northwestern States and Territories of the Mississippi Valley. The plan contemplates the establishment of ten central agencies—Chicago, Cincinnati, Kansas City, Indianapolis, Omaha, St. Louis, Cedar Rapids, St. Paul, Milwaukee and Louisville—these agencies to do all the selling of the members of the association, for which they shall be paid stated commissions. The territory tributary to these commercial points is to be divided into eight principal districts, and subdivided into sub-districts by counties.

Forty-three persons or firms are entitled to make the boast of being "Purveyors to her Majesty" in the city of London alone. These include four jewelers, five wine merchants, one heraldic painter, one bedding manufacturer, one hatter, two linen drapers, one mercer, one maker of "daylight reflectors," three lock and safe makers, two coal merchants, one furniture printer, one mustard manufacturer, one ironmonger and brazier, one robe maker, one manufacturer of cellar implements, two photographers, one optician, one baker, one purveyor of turtle, one lithographer, two type foundries, two grocers, one umbrella maker, one waterproof clothing maker, one tricycle manufacturer, and one purveyor of dogs' biscuit. This does not include the list for the West End.

The Government has already a very large school established for the Indians. Including agency, industrial and boarding schools, it has an aggregate of 227, with a capacity of 13,753 pupils, an enrollment of 14,333 and an average attendance of 10,520. On these schools the Government expended during the last fiscal year \$1,106,035.57, besides the expenditures for construction and repair of buildings, the transportation of pupils and sundry miscellaneous items. In his last annual report Commissioner Atkins declares that "the Indian can be educated equally with the white or the colored man," and that the average cost decreases from year to year. The cost last year for each pupil in a Government building school was \$170; in a contract boarding school, \$130; in a Government day school, \$53; in a contract day school, \$30. It must not be inferred that the contract schools are the cheaper. The difference is due to the fact that the private societies supply the deficiencies in the latter from their own funds.

FARM AND GARDEN.

One Method of Teaching Calves to Drink.

F. W. Dunn, Riley Co., Kansas, writes: The *Prairie Farmer* gave several suggestions about teaching a calf to drink, but they were confined to the upper-lip method, as I call it. The difficult part is teaching the calf to put its nose into the pail. This is easily done by the under-lip method. Back the animal into a corner, holding the pail with right hand assisted by right leg. Put left arm over the calf's neck, placing the fingers in its mouth from the under side. In this position the calf's lower lip rests in the palm of the hand and it hunts down for its feed, and thus puts its nose into the pail of its own accord. When the calf begins sucking, slowly withdraw the fingers, allowing it to feel about for them by keeping the finger ends against its lower lip. (The hand is down in the milk.) I have been equally successful with this method whether the calf sucked its dam three days or two or three weeks, and never needed allow the calf to suck my fingers after the fourth feeding, and several drank readily at second. Calves taught to drink by this method seldom bunt the pail about, thus spilling the milk. Do not attempt to teach to drink until they are thoroughly hungry.

Sunflowers and Malaria.

The sunflower has long been popularly supposed to be a preventive of malarious diseases. The opinion is well founded, and for the reason that hairy soft leaved plants are supposed to greedily take up malarial gases. The sunflower has broad leaves, and in relation to the size of the plant a large leaf surface. The leaves of the sunflower were long considered to be a specific for asthma, when dried and smoked in a pipe. The value in this direction has not yet been successfully controverted. We recommend the planting of the sunflower freely about the house in all regions where malarial emanations are likely to be found. This is always the case in all prairie regions or those where the original sod is turned. The seeds are produced in profusion, form a fattening food for poultry, and may be fed to all farm animals occasionally with profit. The stalks broken up make excellent kindlings for fires, and thus every portion of the plant may be put to good use.

When raised in regular field rows, plant four feet apart between rows by twelve inches in the row. Cultivate precisely as you would Indian corn. When the heads are ripe cut and carry to the threshing floor, or cut partially off and let them hang down on the stalk until dry and then thresh. The stalks may be cut next to the ground and stacked up until wanted for fuel. —*Farm, Field and Stockman.*

Onion Culture on the Farm.

Levi P. Warner, of New Hampshire, says in the *American Agriculturist*: The writer has had thirty-five years' experience with the onion as a field crop, and has not been able to discover any change in those fundamental principles which are indispensable to its growth and perfect maturity. It requires a fine firm texture of soil, drainage, rain-fall (or irrigation) at suitable intervals, and if the soil has been exhausted of its fertility by repeated croppings it will refuse to yield a harvest even in these modern times, because the onion has nothing in itself to make a crop of. In the matter of rotation we have increasing evidence that, with proper tillage and fertilization, onions may be grown upon the same field for a long term of years, with reasonable prospect of success. But methods and systems have changed. It was formerly said that the man skilled with the hand-hoe who would start early and work hard and long would be sure to succeed with this crop. While the hard work has not been eliminated, something more is required now. New and improved implements have been introduced, whereby labor has been very much abridged. Chemical fertilizers are more generally used. The demands of the market are constantly changing, and there is competition on every side. The successful onion grower of the present time must be not only a willing worker, skilled in the use of improved implements, but he must be a well-read, careful observer.

The soil upon which our onion crop has been grown is alluvial, heavy loam, but easily cultivated, nearly level, and absolutely free from stones. The recent practice has been to plow in autumn, after applying a half-dressing of farm-yard manure, to be supplemented with chemical fertilizers the ensuing season. In early spring we apply to each acre two hundred pounds of high-grade sul-

phate of potash, an equal amount of plain superphosphate, and one hundred pounds sulphate of ammonia; harrow, drag and hand-rake until the ground is very fine, firm and free from all rubbish that would obstruct the seed-sower or push-hoe. We sow four pounds per acre of yellow Globe Danvers onion seed, in drills fifteen inches apart. The demands of the market must, however, regulate, to some extent, the variety and amount of seed used. The after-culture consists in keeping the crop free from weeds, and thorough but shallow cultivation oft repeated until the crop is nearly grown. We usually apply one hundred pounds nitrate of soda broadcast early in July, and if the crop seems to require it, repeat the dressing after an interval of a week or ten days. During the last half of September the crop is ready to harvest, when we pull the onions and allow them to remain on the ground to dry, four or five days before and perhaps as long after removing the tops. Then, if the weather has been favorable, they are in fine condition to store or send to market. We invariably prefer the latter, because it gives more time to attend to other farm-work, which always crowds at that season of the year, and also saves cost of storage and re-sorting, though others prefer another course.

Our loss from smut, blight, or mag-gots has been quite small, and we regard the crop as reasonably sure. Still, there is an occasional shortage which amounts to twenty, thirty, and sometimes even fifty per cent. of the crop. It comes alike on the well-cared-for and the neglected fields in the locality, and sometimes over a wide extent of country. This result occurs, perhaps, not more frequently than once in a decade of years, and we have not been able to trace it to any well defined cause.

Farm and Garden Hints.

The safe way to get good milk cows is to raise them.

Remove the seeds before feeding pumpkins to cattle.

Dampness is a great producer of disease among poultry.

Water cattle frequently or let them have free access to it.

For growing calves, oatmeal may have scalded milk added to it.

Dirty boots are as much out of place on the hay as on the carpet.

Keep the poultry, old and young, out of the spring slop and slush.

Poultry are fond of milk and butter-milk, and they promote laying.

Learn how to make first-class butter and you can easily get first-class prices.

The best authorities claim that cream should be kept at a temperature of about fifty degrees, or between this and sixty degrees.

Skim milk of a dairy is worth more to be fed to calves in winter than in summer, but it should be fed warm and sweet, and with a little oatmeal. Never destroy a calf's digestion with cold milk.

The chief use of commercial fertilizers, guano, phosphates, bone, potash, salts and special fertilizers prepared by formulae for different crops is to supply nitrogen, phosphoric acid and potash.

Butter takes nothing from the soil that affects its fertilization as do crops of cereals. It is almost wholly carbon, which is derived by the plants from the air. Butter, though sometimes high in price, is really produced from the cheapest elements known.

The creamery system is the only one for managing milk and making butter that does not make slaves of women. It is the great emancipator of the housewife, besides making more butter and of higher average quality. As a measure of economy no good farmer should be without a creamery.

Corn is the best crop for ensilage. Clover and grass are better made into hay, although there is, undoubtedly, a loss of nutriment in the drying of them. Corn yields more weight and bulk than any other fodder crop, and is beyond all comparison the best plant for the purpose. To secure the best quality of the fodder it should be grown in rows three feet apart and with four or five plants at intervals of eighteen inches. As it is desirable to have the grain ripened the common corn of the locality should be planted.

Plants, like animals, require food for life and growth. A part of the food of plants comes from the atmosphere, the rest is furnished by the soil. No ordinary cultivated plant can thrive without a

sufficient supply of each of a number of substances needed for its food. With an abundance of all these, in forms in which the plant can use them, and with other circumstances favorable, the crop will flourish and the yield be large. But if the available supply of any one of them be too small, a large yield is inevitable. If all the other conditions for a profitable crop of corn, potatoes and other plants are fulfilled in the soil, except that potash is deficient, the crop will surely fail. But if the potash be supplied the yield will be abundant.

A hearty cow, fresh in milk, observes the *New England Farmer*, and eating dry food, will frequently drink five or more ordinary pailfuls of water in a day. If this be taken into the system near the freezing point it must be warmed by the heat of the body, which heat costs the farmer money, just as the heat from the wood or coal we burn in our stoves costs money. It was long ago discovered that heat saved by tight walls and roofs is cheaper than the heat produced from hay and grain. It is now being learned that wood, coal and kerosene oil is cheaper fuel for warming water for animals than hay or grain. One feeder estimates that during the present winter five cents' worth of fuel used for warming the drinking water for his cows has returned him \$1.50 worth of butter.

Farmers are every year learning the importance of sowing grass and clover seeds very early. It is best to seed when the ground is frozen, and when still further frosts may be expected. The surface is then damp, and the fine seeds are covered sufficiently to insure their rooting after they germinate. It is better even to tramp over the fields through the mud than to wait for the surface to become dry. Generally, however, there are light frosts at night at this season, and the sowing can best be done on still mornings before the mud has thawed. The reason why grass seed sowing must be earlier now than formerly is because vegetable matter in the soil decreases with continued cultivation, and this prevents it from holding moisture as long as it used to do. If grass seed does not get rooted early it is quite apt to dry out and perish when dry weather comes.

Cutting a tree down is a quick and inexpensive way of disposing of it. Of course the stump is left, but if sprouts are burned off next July or August, it will not sprout again to do any hurt, and will in time rot out. Whoever tries grubbing out trees as a means of clearing land will tire of it. There are places where it will pay to remove a few and have valuable land at once available for other uses. But ordinary farm crops will not pay the expense. It is a poor little tree that does not require three feet square to be grubbed over to get it out by the root. This is just one square yard. If it could be done for three cents it would make the land thus obtained cost \$300 per acre. Some calculation of this kind is apt to come over a man when he has been working a whole day to grub out a tree. The next one he tackles will be cut down in the old-fashioned way, and leave time to do the grubbing.

A Prince's Pipes.

Prince Henry, the Emperor Frederick's second son, smokes his pipe in English fashion, and smokes it morning, noon and night. You could meet him, when he was at San Remo, strolling about after breakfast, with a well-colored English short clay, or cutty. In the afternoon, he made just this sacrifice to fashion—he changed the clay for a briar-root. It is related of him in San Remo that, going to church one Sunday afternoon, he started with his prayer-book under his arm and his briar-root well alight in his mouth. A young English friend of his, who was staying at San Remo, ventured on a mild remonstrance. "My dear boy," said the young English dandy, "you are not going to church with that thing in your mouth?" Prince Henry took the pipe out of his mouth, and looked at it. "I beg your pardon, old fellow," he said; "I forgot it was Sunday." He ran back home with the briar-root, and reappeared with a meerschau. —*Argonaut.*

Pride's chickens have bonny feathers, but they are an expensive brood to rear; they eat up everything, and are always lean when they are brought to the market.

The greatest difficulties are where we are not looking for them.

Soot burning on back of chimney indicates storm.