

OUR FARM BUDGET.

Why Dairying is Profitable—Cheap Shelter For Cattle.

Estimating the Age of Trees—Distinguishing Characters of Different Breeds of Cattle—Roller—Grapes—Household Hints and Farm Notes.

Why Dairying is Profitable.

[Philadelphia Record.]
The dairy farmer, as a rule, is prosperous and has fewer drawbacks and better results than the farmer who makes a specialty of grain crops, even general stock raising. The reason is that dairying enables to sell his crops in the shape of a manufactured product, thereby securing better prices than when the crops are marketed in bulk. The majority of farmers, however, have not realized the fact that they do not derive more than one-half the milk from their cows that they should receive. There is a disposition to be satisfied with whatever quantity a cow may give, whether it be great or small. While we have in this country breeds of cattle that are superior for milk production, and individual animals from such giving over forty quarts of milk daily, yet the average daily quantity derived at the dairies is less than ten quarts. And yet with this small quantity from each cow, dairying proves profitable, and will continue to do so, but there is no reason why the profits should not be greater.

Dairying does not pay simply because the cows give milk but because there are several matters connected with dairying, which, taken as a whole, renders the business one that adds permanently to the wealth of the farmer and increases his capital in a manner not always observed. The cows increase the fertility of the soil, which produces larger crops, and adds to the number of animals that can be sustained. In other words, dairying is a system that tends to improvement and prevents impoverishment of the soil. It must be admitted, however, that in the course of time the elements of fertility will pass away in the milk and young stock hold of the farm, but the milk and young stock of farmers are compelled to purchase barn-ships and other materials that supply the place of food that is not produced at home, which compensates for the loss of that which is sent to market. The reason why dairying is profitable is because the farmer not only keeps up the fertility of his soil by the use of his stock, but by the better feed obtained from his dairy cows, which, with general farming, gives him a surplus and enables him to expend a proportion annually for food to be brought on the farm.

If dairying, however, is profitable with the low average of ten quarts of milk daily from each cow (and the estimate is high), it can not be denied that the profits could be increased if better animals were used. As long, however, as farmers persist in tolerating the presence of the scrub bulls it is plain that they must continue to depend upon purchasing fresh cows whenever the milkers become dry. The farmer who keeps a good stock of cows will always retain dairying, as no reliance can be placed upon the value of such cows until they have been tested, which may show many of them to be worthless. Every farmer can not afford to yield forty quarts of milk a day, but every farmer can, by the use of thoroughbred bulls of the Holstein or Ayrshire breeds, so grade up his herd as to double the average yield and largely increase the profits. A good cow requires no more room than an inferior one, nor is the labor and care necessary in the management greater. The expenses will be but very little more, while the profits will be much greater. The farmer who has invested. With the desire to improve comes the inclination of adopting better systems of management, which includes better fences, smaller areas for pasture, and larger fields for cultivation, as well as the careful selection of the manure, and the selection of the choicest and best animals every season. It may be suggested, also, that even the management of the product (milk) will be so conducted as to increase the value of the butter, thereby adding to the profit by increased prices as well as from the larger quantity resulting from improvement of the stock.

Cheap Shelters for Cattle.

A farmer in New York writes: It is very poor policy to keep the cattle in the open air until winter comes, with the thought that there will be more time after the fall's work is done, for before that time stock will have suffered a great deal from cold storms and frosty nights. We know that man and beast are susceptible to the first cold days of autumn as to the much lower temperature of winter, which the system is gradually prepared to endure. Although a farmstead, located in the heart of a cold, clap-boarded, painted barn, with warm, dry basements for stabling the stock, or warm sheds on solid walls—and these are undoubtedly more economical in the long run—yet if a farmer's pecuniary condition is such that he cannot warrant the outlay cheaper substitutes can be put up for temporary use. We have known very comfortable sheds made by tacking straw upon strong poles supported by posts. If the shed is covered with straw, the sides by straw, with the open side toward the barn, they may be quite warm. In such a shed stock would be tied up, or a few of the stronger will take possession of the shed and the weaker. Quite a passable cattle stable may be built with rough boards by boarding up inside and filling in between with straw. To save lumber quite large pieces may be left between the boards. If boards are used for the roof considerable care is necessary in battening the joints to prevent leakage. In all cases where the earth floor the floor should be liberally covered with straw. The straw on the floor will be greatly increased by banking up the outside with earth, leaving a shallow ditch to carry off the drippings from the roof. A farmer and his family will find a small outlay for rough lumber can build very good buildings for other stock than cattle. He can make a good pig sty for his swine, a shed for his sheep, and a house for his poultry. Although these houses are not very ornamental in themselves, yet their manifest adaptation to their purposes makes a farmstead look a great deal more comfortable and, consequently more attractive.

Novel Form of Ice-House.

A Boston paper writes: The best form for an ice-house would be that of a globe, because then we should have the greatest bulk with the least surface. Such a shaped house, however, would be inconvenient and expensive to construct. The next best form is a cylinder. Practically, however, an inverted truncated cone will give all the advantages of the cylindrical form with the further advantage of being more economical in construction and in keeping in repair. The worst possible form is a cubical or square ice-house, for the corners of the ice in such a house will always melt away and leave the mass of ice rounder and rounder. The water which penetrates the ice in such an ice-house makes it porous and it rarely happens that a square ice-house, unless very large and deep, will keep ice throughout the summer. In our climate, ice-houses are rarely built above ground. The best way to construct one for family use, and this is the result of experience and observation, is to select a northern hillside or exposure where there is a good growth of forest trees. Lay off a circle on the surface of fifteen feet in diameter and dig to the depth of fifteen feet, sloping so that the diameter of the excavation at the bottom may be ten feet. In the bottom of this sink a well six feet deep and five feet in diameter for the purpose of catching the water from the melted ice. Over this well lay slabs of white oak or other hard wood, with the bark taken off and the rounded surface turned upward. Poles sixteen feet long and from five to six inches at the larger ends are set up against the walls of the ice-house, the smaller ends being turned downward. The sloping sides of the ice-house and the tapering poles make a beautiful fit, and after the poles are adjusted the house will resemble a large churn turned bottom upward. If desired, a few large hoops may be nailed to the poles above and below. The poles, however, will retain their positions without the hoops. Over the house a square pen or frame work three feet high should be erected and covered with a projecting roof. The earth should be thrown against the sides of the house until there is a slope outward in every direction. This will prevent the water from running down the sides. Gutters for carrying off this roof water would be better and keep the earth near the pen from becoming saturated with water. The ends of the structure should be closed with boards, but slatted windows in both ends would be advantageous in permitting the hot air to escape. A large door should be constructed in one end, so as to permit the ready ingress and egress, and putting in the first thing to be done is to throw down straw enough in the bottom to cover the slabs two or three inches deep, after it is compressed by the weight of the ice, so that the ice will nowhere come in contact with the wood. When the ice-house shall have been filled on a level with the top of the slatted windows, load the entire roof should be used in covering the entire roof is filled with straw it will be all the better, though the ice will keep well if only a third of the roof is filled.

Estimating the Age of Trees.

The counting of the rings added by exogenous trees every year to their stems, has been applied to trees cut down in their prime, and hence it is useless for the older trees which are hollow and decayed. Trees, however, that are not cut down, and which are equally from the center that, as in the case of a specimen in the museum at Kew, there may be about 200 rings on one side to fifty on the other. Perhaps the largest number of rings that have ever been counted in the case of an oak felled in 1812, where they amounted to 710; but De Candolle, who mentions this, adds that 300 years were added to this number, and the result was 1,010. The remaining rings, which it was not possible to count. This instance may be taken to illustrate how unsatisfactory this mode of reckoning really is for all but trees of a few years' growth. The external growth measurement for these reasons the best we can have, being especially applicable where the date of a tree's introduction into a country is known, and the growth is regular. It enables us to argue from the individual specimen or from a number of specimens, not with certainty, but with certain limits of variation, to the rate of growth of a tree as a species. In these measurements of trees a century or more in age such as are given abundantly in London's "Arboretum," lies our best guide, though even then the growth in subsequent ages remains a matter of conjecture. The difficulty is to reduce this conjectural quantity to the limits of probability; for, given the ascertained growth of the first century, how shall we estimate the diminished growth of the last centuries? The best way would seem to be to take the ascertained growth of the first century, and then to make, say, the third of it the actual growth of every century. Thus, if a tree in all previous centuries has averaged growth of an oak in its first century, four feet would be its constant average rate and we might conjecture that an oak of forty feet was about 120 years old. But this might be much less, for the reason for taking the third is not so much that it is a more probable average than the half as that it is obviously less likely to err on the side of excess of rapidity.

Distinguishing Characters of Different Breeds of Cattle.

We are asked, says the American Agriculturist for October, to name the distinguishing characters of the different common breeds of cattle, and to indicate their hardness. To exhibit this comprehensively, we have prepared the following table. It must, however, be borne in mind that all of the breeds, well fattened and of suitable age, make good beef; that all give milk, from which good butter may be made; that large milkers and good butter makers, no doubt, have the best care, and often great forcing, and hence are not so hardy as the others. No doubt the same is, in a measure, of those marked "good." They are all hardy if reared for two or three generations naturally.

BREEDS OF CATTLE.		Native Country.	Size.	Color.	Milk.	Butter.	Hardness.
Shorthorn.	England	Large	B. w.	mod.			
Hereford.	England	Large	B. w.	mod.			
Devon.	England	Large	B. w.	mod.			
Angus, Polled.	Scotland	Large	B. M.	great			
Highland.	Scotland	Bel w.	B. M.	great			
Ayrshire.	Scotland	Medium	B. M.	great			
Dutch.	Holland	Large	B. M.	great			
Swiss.	Switzerl.	Ab'v md.	B. M.	great			
Normandy.	France	Large	B. M.	great			
Guernsey.	France	Medium	B. M.	great			
Kerry.	Ireland	Small	B. M.	great			
Jersey.	Chant' Is.	Medium	B. M.	great			
Guernsey.	France	Ab'v md.	B. M.	great			
Norfolk, Pol'd.	England	Ab'v md.	B. M.	good			

A Home-Made Land-Roller.

R. B. Watson, Morgan County, Ill., sends the American Agriculturist a description of a roller made and used by himself. It consists of two sections of a round log, dressed smooth, and fitted in a frame. The frame is made of four oak logs, bolted together firmly. The logs are each eighteen inches in diameter, and three and one-half feet long, one being set three inches ahead of the other in the frame. The pins of the rollers are secured by a single iron pin, and a seat may be fitted partly by the rear of the frame, and balance the weight of the tongue, and relieve the horse's necks.

Soils and Seasons Affect Quality in Grapes.

Perhaps no fruit varies more in the quality of its flavor, as affected by location and the season, than does the grape. The same variety which is rich and luscious in one place, is poor and tasteless in another. The Concord is a fine grape in Southern New Jersey, but inferior in the northern part of the State; it is large and rich when grown on the sandy banks of the lakes of eastern New York, but small and insipid on the clay soil at the foot of some of these lakes. On the best of soils a marked difference is made in the character of the grape by the season. A summer in sunshine and free from prolonged rains, and a period of cloudy weather, with a late and beautiful fall, will produce grapes of a quality that is never seen in ordinary seasons. Even the most common varieties attain a sweetness and a flavor, which rank them with the better kinds. In such a year, the Concord contains a double mouthful—one in the pulp, and one in the skin. The Catawba grows almost as dark as the Isabella, and the Diana colors a perfect purple, and loses entirely the peculiar "catty" flavor of other seasons.

Household Hints.

Pickled Mangoes.—Young musk or nutmeg melons, English mustard seed, two handfuls, mixed with scraped horseradish, one handful; mace and nutmeg powdered,

one teaspoonful; chopped garlic, two teaspoonfuls; a little ginger; white pepper, one dozen; one-half teaspoonful of ground mustard to a pint of the mixture; one tablespoonful sugar to the same quantity; one tablespoonful best salt oil to the same; one teaspoonful celery seed. Cut a slit in the side of the melon; insert your finger and extract all the seeds. If you cannot get them out in this way cut a slender piece out, saving it to roast, but the slit is better. Lay the mangoes in strong brine for three days. Drain off the brine, and freshen in pure water twenty-four hours. Green as you would cucumbers, and lay in cold water until cold and firm. Fill with the stuffing; sew up the slit, or tie up with packthread; pack in a deep stone jar and pour the scalding vinegar over them. Repeat this process three times more at intervals of two days, then tie up and set away in a cool, dry place. They will not be "ripe" under four months, but a very fine "when the seeds are not green, but yellow."

Sweet Tomato Pickle.—(Very good.) Seven pounds ripe tomatoes, peeled and sliced; three and one-half pounds sugar; one ounce ground nutmeg; one ounce ground cinnamon; one quart of vinegar. Mix altogether and stew one hour. Pickle.—Four large, crisp cabbages, cut fine; one quart onions, chopped fine; two quarts vinegar, or enough to cover the cabbage; two pounds brown sugar; two tablespoonfuls ground mustard; two tablespoonfuls black pepper; two tablespoonfuls cinnamon; two tablespoonfuls turmeric; two quarts water. Boil the sugar and water together until it is a syrup. Then add the vinegar, spices and onion. Do this three mornings in succession. On the fourth put all together in a large jar, and seal it with a cork. Let it stand five minutes. When cold pack in small jars. It is fit for use as soon as cool, but keeps well.

Mixed Pickle.—Take one pound ginger-root and one-half pound garlic, both peeled and sliced; one-half pound turmeric and one-quarter pound long pepper. Digest together two or three days near the fire in a stone jar, or gently simmer them in pickle or emulsion. Then put in the sliced ginger-root and spices, except red cabbage and walnuts, all previously salted and dried.

Preserved Crab-Apples.—The red Siberian crab is the best for this purpose. Pick out those that are nearly perfect, and put them in a preserving kettle, with enough warm water to cover them. Heat this to boiling, slowly, and simmer until the skins break. Drain and skin them; then, with a peck knife, cut out the cores through the blossom end. Weigh them; allow a pound and a quarter of sugar and a teaspoonful of water to every pound of fruit. Boil the water and sugar together until it is a syrup. Then add the fruit, cover the kettle and simmer until the apples are a clear red and tender. Take out with a skimmer; spread upon dishes to cool and harden; then stir the juice of the apples and sugar through the fruit and fill the jars. Fill your jars three-quarters full of the apples, pour the sirup in, and when cool, tie up.

Pine Tomato Preserves.—Seven pounds ripe yellow or green tomatoes, peeled, seven pounds sugar, and juice of three lemons. Let them stand together overnight. Drain off the sirup and boil it, skimming well. Put in the tomatoes and let them stand in the sirup until they are tender. Then spread upon dishes to cool and harden; then stir the juice of the lemons and sugar through the fruit and fill the jars. Fill your jars three-quarters full of the apples, pour the sirup in, and when cool, tie up.

Quince Marmalade.—Pare, core and slice the quinces, stewing the skins, cores and seeds in a vessel by themselves, with just enough water to cover them. When this has simmered long enough, drain off the water, and the parings are broken to pieces, strain off the water through a thick cloth. Put the quinces into the preserve kettle, with this water, almost cold, pour it over the fruit and boil, stirring all the while, until the fruit with a wooden spoon as it becomes soft. The juice of two oranges to every three pounds of the fruit imparts an agreeable flavor. When you have reduced all to a pulp, add a pound of sugar for every pound of fruit; boil ten minutes more, stirring constantly. Take off, and when cool put into small jars, with brandied papers over them.

Quince cheese is marmalade boiled down to a thick consistency, and can be put in turn out from a cheese, and can be cut in slices for luncheon or tea.

Preserved Quinces.—Choose fine, yellow quinces. Pare, quarter and core them, saving both skins and cores. Put the quinces over the fire with just enough water to cover them, and simmer until they are soft, but not until they begin to break. Take them out carefully, and spread them upon broad dishes to cool. Add the parings, seeds and cores to the water, and boil until the water is reduced to one-half. Strain through a jelly bag, and to every pint of this liquor allow a pound of sugar. Boil up and skim it, put in the fruit and boil fifteen minutes. Then add a pound of sugar and a pound of butter. Cover closely and let it stand twenty-four hours. Drain off the sirup and let it come to a boil. Put in the quinces and let them stand in another quarter of an hour, and let them up as dry as possible and again spread upon dishes, setting these in the hottest sunshine you can find. Boil the sirup until it begins to thicken, and then pour it over the quinces and cover with the sirup. The preserves should be of a fine red. Cover with brandied tissue paper.

Preserved Apples.—Firm, well-flavored pippins or bell-flowers make an excellent preserve. Wash the apples, and peel them as quinces. A few quinces cut up among them, or the juice of two lemons to every three pounds of fruit, improves them.

FARM NOTES.

A good horse, one that is well bred, and that will sell at a good figure, costs no more to raise than an inferior one.

When proper facilities exist, eggs are more profitably sold in the winter than in the summer, and are proportionately more profitable.

An ordinary hen's egg weighs from 1 1/2 to 2 ounces; a duck's 2 to 3 ounces; a turkey's, 3 to 4 ounces, while that of a goose weighs from 4 to 6 ounces.

For chicken cholera there is nothing better than carbolic acid—one dram mixed with two gallons of water. Let the fowls have free access to it as a drink and mix it with their food once a day.

Exercise vigilance in the price of fruit. With the borer, worms, blight and insects of all kinds to combat, no one can make fruit-growing profitable who does not watch his trees and give them unceasing care.

The dairy products of this country exceed the output of any other country. The wheat crop, \$100,000,000; the cotton crop, \$20,000,000; the product of iron bars and steel, \$20,000,000; and the pig iron output, \$10,000,000.

To give some idea how quickly milk was consumed in this country, it is stated that a saucer of milk in a larger city than New York is consumed in a few hours, and that in a few hours the milk becomes so tainted that no animal will touch it.

If the French can derive \$100 annually from one cow, making cheese a specialty, should not the same be done in this country? Our facilities are equal to those of the French, while our markets are quite as good.

After a careful trial for two years, and a study of the experience of others, Mr. P. R. Carleton, of West Virginia, states that the capacity of the land for supporting stock is at least doubled by the use of ensilage.

As much as fifty pounds of honey has been secured from a colony during favorable seasons.

It has been demonstrated that milk can be produced at a less cost from ensilage fed with grain than from any other food, and in many cases it is equal to milk produced by any other mode of feeding. But ensilage alone is not so profitable.

It is a well-demonstrated fact that land half worked can never more than half pay. In the difference between imperfect and thorough culture where the all the mystery why some farmers make so little and some so much.

Unhealthy milk may be divided into two classes: First, unhealthy because secreted by a unhealthy cow. Second, by absorption of disease from the atmosphere, or by becoming contaminated from the addition of impure water, etc.

Observe your horse when he is drinking at a brook, is an Arab maxim. If he is bringing down his head he remains square without bending his limbs he possesses sterling qualities and all parts of his body are built symmetrically.

There is nothing so good for causing distemper and scours in stock as a leaky roof. One-half the filth may be traced to damp quarters. And yet the stables and barns are expected to be so perfect that they will keep a single will remain in its place.

Great care should be exercised in keeping the cow pasture entirely free from rag-weeds. These weeds impart a peculiarly disgusting taste to the milk, and if the cow is not kept clean, the butter made from such milk is also impregnated with the same peculiar taste.

A bridge to prevent a cow from sucking herself is made as follows: A head-stall is made of a wooden board, and is fastened to each side of the cow from the head to the hind legs, and is fastened to the cow for the cow to reach the teats, while it does not interfere with her feeding.

A great saving is effected by making wagons used on the farm with tires three or four inches wide. The wheels will not sink into the ground, and the horse will not be so fatigued. English farm wagons are generally built in this way. On ordinary roads wide tires make the track better instead of cutting the ruts more deeply, as narrow tires always do.

In some quarters it is stated that much of the barley crop this year is badly stained, and some is sprouted so as to be utterly unsalable for malting purposes. Such barley, however, need not be lost. It makes, when ground, the best feed for stock where growth rather than fat is desired. Some farmers grow a small patch every year to give their hogs a start before corn feeding begins.

Provision should never be allowed to roost in the stables. Although the hens will lay in the troughs and racks, yet they do more damage to the hay than the eggs will repay. Not only do they foul the stalls and floors, but are noisy and disagreeable to the animal. They will do nothing to help the farmer, but transfer lice from their bodies to every portion of the stable, which become hard to eradicate and entail much labor and annoyance.

The most important matter to be observed in breeding good stock is purity of breed. A mongrel sire cannot impart uniformity to his offspring. Good beef can only be produced by the use of beef-producing breeds, and the largest and best of these are the pure breeds. It is especially adapted for such productions are used. It is economical to use pure-bred sires, while the profit is also largely increased.

A flock of sheep will pick up windfalls of apple orchards even more actively than a drove of hogs, says the New York Herald. The pig is naturally a lazy animal if bred as he should be, and kept conveniently fat, he will not pick up windfalls. Sheep will get more benefit if fed from pasture in orchards than will pigs, as well as depositing their droppings more evenly. They also destroy much weeds and undesirable plants that the pig will not touch.

Potatoes, which are dug in clear weather and thoroughly dried in the sun, will keep in much better condition in the cellar than those put into bins without being sun-dried. Some recommend spreading them in the sun, but this is not a good plan. The sun may improve their keeping qualities, and they may be just as good for seed, but are not generally considered equal for table purposes to those put into the cellar when taken from the field.

By carefully selecting the best animals on the farm every year, and discarding those that fail to fulfill expectations, the stock will be gradually improved in quality. Such a practice will not only improve the quality of the stock, but will change the character of the common herds and flocks, and bring them to a degree of perfection but little (if any) inferior to those that are pure bred. Skillful breeders can do this, and the necessary accomplishments in stock raising.

Commence to pick apples when the stem parts from the spur by giving it a gentle turn. A picked ladder, made by fastening the top ends of the sides together with a gripe, is a very superior ladder for the purpose. The ladder should be spread a little more at the bottom than a common ladder. Small ball baskets, with iron hooks attached to the balls, are very convenient. Put in the quinces and let them stand in another quarter of an hour, and let them up as dry as possible and again spread upon dishes, setting these in the hottest sunshine you can find. Boil the sirup until it begins to thicken, and then pour it over the quinces and cover with the sirup. The preserves should be of a fine red. Cover with brandied tissue paper.

The pork market for family use may be much improved by keeping the hogs under conditions promotive of health. A good ran in the pasture, with plenty of exercise, clean water, with corn at the finish, will produce pork of a superior quality. Whether the hogs be confined, they should receive grass plentifully, and the pens kept scrupulously clean. The pork will thus not only be of good quality, but free from many parasitic diseases peculiar to the hog, and will bring a higher price if sold, provided such conditions are known to have been observed.

As a varnish for ferretories the following recipe has been recommended. It is considered should be highly rectified benzole, and the most suitable resinous body is gum dammar. Crush the gum, and having placed it in a bottle pour in the benzole and shake it up. The varnish is then ready for use. Good varnish can also be made by dissolving Canada balsam in benzole.

About ten years ago I found that my gums commenced to decay, which I attributed by the use of common table salt, applied to the gums by the ball of the finger. Since commencing to use salt I have heard from many, including dentists and physicians, that it is one of the best things for that purpose.—Correspondent Boston Transcript.

Pond's Extract and Ointment. Although different as medicines, there is much in the discovery and history of these two great specifics that is similar. When it was found that the Extract of Peruvian Bark was a specific for fever and malaria, great efforts were made to discover a vegetable medicinal wood when Pond's Extract was found to be a specific for all forms of Inflammations, Hemorrhages, Bolls, Burns, Sprains, Piles and Stomach.



THE WAR CLOUD IN EUROPE.

ALEXANDER I. RISMANN, PRINCE OF BULGARIA, AND RECENTLY PLACED AT THE HEAD OF THE GOVERNMENT OF BULGARIA BY A REVOLUTION.

The populace of Philippopolis, the capital of Eastern Roumelia, rose in rebellion, almost to a man, on September 18, 1885, against the Government, deposed the Government, and proclaimed a union with Bulgaria. A provisional Government was established. The revolt was so well planned that no disorders or bloodshed occurred, everybody being in sympathy with the movement. The Government officials, immediately after the organization of the provisional Government, the militia was sworn in, taking the oath of allegiance to Prince Alexander of Bulgaria. Bulgaria, like Roumelia, is a state tributary to Turkey, but enjoys a higher degree of local independence.

Eastern Roumelia was created by the treaty of Berlin, signed July 13, 1878. Under the arrangements thereby brought into force it remained under the direct political and military authority of the Sultan of Turkey, subject to certain conditions. The majority of the population being Christian, about 574,000 out of a total of 850,000, it was provided that the Governor-General should be a Christian. On the other hand the Treaty gave the Sultan the right to provide for the defense of the land and sea frontiers of the province, by erecting fortifications on them and maintaining troops there. To him was given the naming of officers to command the garrisons and local militia, and to be employed in the maintenance of internal order; and the right was reserved to the Governor-General of summoning the Ottoman troops in the event of any rebellion or external security of the province being threatened. In such cases, however, the Powers parties to the Treaty were to be informed of the decision to employ Ottoman troops, and the exigencies of the situation.

Out of the mongrel arrangement described the Roumelians have lifted themselves by a bloodless revolution, but serious trouble threatens to grow out of this. Bulgarians are Roumelians are preparing to defend their newly wrought union by force of arms against Turkey should this become necessary, and Russia supports them in this decision. Alexander, the Prince of Bulgaria, has engaged the Roumelians to defend the head of an army of Bulgarian cavalry, and a new Governor General of Roumelia has been appointed. Turkey is preparing to fight a battle, or at least to show a show of strength in the defense of her interests, which will certainly be prejudicial whether by war or the decision of the council of European powers which probably will be called to adjust the difficulty that the action of the Roumelians has created. In the inevitable breaking up of the Ottoman power in Europe has doubtless been advanced by the revolution the nature and relations of which have been plainly in outline in the foregoing paragraphs.

Prince Alexander of Bulgaria, who has thus suddenly been called into worldwide prominence, was known before his elevation as Prince Alexander Joseph of Batemburg. He was born April 5, 1873, the son of Prince Alexander Louis George Frederick Emile of Hesse, and the eldest brother of Prince Louis of Batemburg, recently married to the Princess Beatrice of England. For several years beginning in 1870, he was an officer in the German army. In 1877 he entered the Russian headquarters in the last war between Turkey and Russia, from the opening of the campaign to the fall of Plevna. After this event he was absent from the army several weeks, but recrossed the Danube in the winter of 1878, and joined the Grand Duke Nicholas at Adrianople soon afterwards. He was a favorite officer, good natured and ready to oblige on all occasions.

On April 23, 1878, he was elected Prince of Bulgaria by a unanimous vote of the Constituent assembly of Bulgaria, which, by the Treaty of Berlin, had been created a tributary state of Turkey. He assumed the Government June 28, 1878. But for a disposition which appears to be extravagant in the eyes of his thrifty subjects, he enjoys great popularity. He looks every inch a prince, is over six feet high, straight as an arrow, and possesses a fine, commanding figure. He is a soldier in the saddle his soldierly bearing is remarkable. His face is dark, so are his hair and eyes; his features are regular. He cultivates the study of the sciences, and his preference dictates. The prince is very fond of horseback exercise. His reading is chiefly confined to works on military subjects. He enjoys the use of a civil list worth about \$120,000 a year, which he has placed in a palace at Sofia. Late events will probably serve to better his financial fortunes.

RELIGIOUS, INTELLIGENCE AND INCIDENT.

The revocation of the Edict of Nantes was issued 200 years ago, Oct. 7, 1822. The queen of one of the South Sea Islands is personally engaged in gospel work. The fifteenth anniversary of the landing of missionaries in Fiji will occur Oct. 11.

Pope Leo XIII. has an annual income of \$1,800,000, but it is said that his expenses for food are but fifty cents per day. The Rev. Dr. G. H. Hepworth, editor of the New York Herald, is the regular supply of a Congregational church in Newark. The Presbyterian Church of the country gave last year for all objects the sum of \$10,102,003. This is an average of \$15 to each communicant.

A nephew of the King of Corea, a son of his Prince Yung Hwang, the son of a military mandarin have entered the Southern Methodist College at Shanghai.

The queen of one of the South Sea Islands is said to be personally laboring for the conversion to Christianity of a tribe of heathens who killed her husband.

A new steamer, costing over \$30,000, has just been constructed by the Church Missionary Society for the use of its missions on the Niger River in Africa.

The Jesuits have purchased the island of Bahiah, in Walworth County, Wis., thirteen miles from Waukesha, and will shortly erect a villa for the use of scholars, and for a place of retreat during vacation.

The Moravians, who are one of the smallest religious denominations, maintain 329

missionaries in various parts of the earth, and 1,366 native assistants, and now have about 31,000 adherents in mission fields.

The American Missionary association are themselves with a debt of \$50,000 at the close of the present year if plots people do not come to the rescue, and it makes an especial appeal to the churches for more money.

The Rev. A. W. Mann the deaf mute missionary of the Episcopal church, travels annually 40,000 miles. He ministers to no less than three thousand of his afflicted brethren, scattered over thirteen dioceses.

Lord Plunket, the new Protestant Episcopal archbishop of Dublin, publicly stated at a recent convention that he had invested in more than five hundred raffles on opening a church bazaar at Kensington. He denies that church raffles are incentive to gambling.

Mrs. Spook, when her pastor called the other day, hastened to find a Bible for him to read. She could find only a few soiled leaves up in the garret, which she handed to the pastor, remarking: "Why, really, I didn't know you were so near out."—Detroit Free Press.

KNOTTY PROBLEMS.

Our readers are invited to furnish original enigmas, charades, riddles, rebuses and other "knotty problems," addressing all communications relative to this department to E. B. Chadbourne, Lewis-ton, Maine.

No. 1339.—A Strange Transformation. As I was passing down the street a stupid fellow I chanced to meet. The boys at him did laugh and shout, And cry, "O, wretched creature, look at that!" But he passed on, and did not mind Those glances and sneers, which were unkind. I pressed behind him, and I saw him seen Two men of ministerial mien. In priestly garb, clean shaven face, They appeared to me as if of place: Two dignitaries, such as they: One going to church some other way, So, heading neither gear nor shod, I jumped between them and the lot, And see if I could get an arm.

No. 1340.—An Anagram. This maxim have I often heard, From whence it came I wonder: "Put on a new coat, and a new head, And woe it I have pondered." 'Tis said that when you are in debt You do not need a new head; But borrow on, and on, and then "REPEAT—BUT FOR PLAY" surely.

No. 1341.—Hidden Animals. The stranger came last evening, From Mexico his silver mines. Our doctor said he possibly he averted, He had the broken rib examined. You must use the largest size brand, The beggar's lot has been very hard. The smith made the tap irregular. He said that the monk eyed him with distrust.

No. 1342.—A Paradox. A thousand servants came one day, And near me stopped and stood. They covered just as little space As any people could.

A mile in length their resting place A paradox this riddle: They occupied but half an inch, Yet all stood in the middle. Exactly in the centre all, They stood and stood and finch; Yet from the centre out, I ween, Was half an inch.

No. 1343.—A Charade. The air is cold and keen, The earth in snow immersed; Yet in the garden beneath, The white snowflakes are cast. O' what a bright tink, As with bright 'tis a cry gaze, In the garden beneath, A white entangled maze?

Perhaps of spring, when teams The scented all will draw, And in the garden beneath, The wooden and the hay. The wooden and the hay, The wooden and the hay.

No. 1344.—A Numerical Enigma. But 1, 2, 3, 4, 5, 6 all the difficulties surrounding me, I should never have been 7, 8, 9, 10 to accomplish so 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 an undertaking as that in which I have just succeeded. CLAUDE.

No