THE FARM.

Capital vs. Brains in the Dairy.

Has any industry, conducted with like capital, any better reward than that returned by the dairy? What man, with a few thousands of dollars invested, makes as comfortable a living and secures a more certain income than the man with twenty-five or thirty cows on a farm of 100 acres? The manufacturer must have a large capital; must manage his business on a scale that carries with it division of labour, and the economics of piece work and a reserve fund to tide him over a dull spell; the dairy is uniform in its labour requirements; there is a daily demand for its finished products; there are as many avenues by which produce may be cheapened as in any other business enterprise.

The demand of the times has led to cheapened production of all kinds. Science has cheapened about all the processes of iron and steel manufacture, and thousands of other things, so that the article complete is furnished to the consumer far below the former price. As the article is cheapened, the demand increases. The manufacturer, by coming to know all the details of his business, and making a thorough study of it, is enabled to get all the value out of the raw material, or work up the waste into other marketable articles, so that the waste and residue of the past is fashioned into the useful of the present, and these wastes now often constitute the chief part of the net profits.

Now has our average dairyman availed himself of all these sources of profit? Is he a dairy student, all the time learning, always making a change for the better? Are his brains active? Is he alert? Does he comprehend the great mystery of Nature with which he has to deal, the mystery of life, its reproduction and maintenance? Does he understand that this cow is a more complex machine than all the mechanism of the great mills, and yet the mastering of the functions, wants and demands of this cow, and the manipulation of her product, constitute successful dairying. Has the dairyman found that dairying is dividing up into special lines, and the profitable dairy is no longer a general purpose dairy? Has he the cow adapted to his purpose, or is he yet owning cows "thoroughbred in unknown breeding?" Is he yet feeding his cows in the expensive ways of the past, or is he adopting the silo, the big soiling crop, and concentrating his dairy efforts? Has he warm and well-lighted barns, and water at the door, or is he yet making his cows hardy by old barns, and a great deal of outdoor, winter exercise? Is he yet setting his milk in tin pans, or has he a hand separator, and getting the last globule of cream from the milk? Is he yet making store butter and exchanging it for groceries, getting no cash, or is he making fancy butter and selling it in a butter market? Is he pooling his milk with that of his neighbors, and selling it at so much per 100 pounds, or does he insist upon its being tested for solids with a modern milk tester, and so get the value of the extra pound of fat in each one hundred pounds of milk that in the past he has been donating to his neighbor who was putting poor milk into the pool? Is he keeping up the fertility of his farm by all known methods, saving manure by a liberal use of absorbents, plowing under clover, putting rye in as a "catch crop" after corn, so that his soil is all the while at work storing up plant food for succeeding crops? Has he reduced the cost of labor to produce crops to the lowest point? Is this man reading good dairy literature, so that he can keep up with the current dairy thought of the day, and find out all that is transpiring in the dairy world in way of experiment and investigation, and put the best things his broadening mind tells him is practical into use? All these points are in the line of better dairying, and are at variance with the plans of those who denounce all dairy advance as born of book learning, as if knowledge were a despisable thing, and all investigation a scheme of men to get a living without work!

All these are vital questions; the contrast between success and progress and the standstill conservative system that actually retrogrades. What business, after all, does pay better on the farm than a well-appointed and conducted dairy?

Care of Farm Horses.

It is apparent even to an indifferent observer that the general run of farm horses do not have that smooth and well-cared-for look that the majority of the horses of city transportation and car companies possess; though the latter, on an average, do vastly more work in a year than the horse upon the farm. The secret of the matter is in the care and feed. Farm horses receive, as a rule, too little attention as to grooming, and are fed too commonly without regard to a balancing of the ration. Farm horses almost invariably eat too much hay, which distends the stomach when taken in large quantities, prevents that organ from doing its full duty, and makes the horses dull and weak.

Many farmers have no regular ration for their horses, but throw down a forkful of hay almost every time they enter the barn. As a result, many of these horses are eating hay from morning till night, to the manifest disadvantage of the haymow and the manifest disadvantage, also, of the horses, whose bodies become distended, skins dry and coats rough, while the digestive organs are thrown out of gear, so that the animal's whole system becomes impaired. The farmer declares that he cannot afford to feed such a ration as is fed to horses in city stables. Well, the value of the hay that is worse than wasted, when fed in the enormous quantities mentioned, if expended for grain, would make a vast improvement in the condition and appearance of the horses, and would involve no extra expense whatever. This is a point that farmers ought to consider, for on it hinges a horse's measure of efficiency in doing his work well.

A small ration of hay fed with regularity three times a day and a suitable grain ration, carefully incorporated with it, with water twice a day, and a thorough grooming, will make of a spiritless, rough-coated horse with distended body, in four cases out of five, a much more alert, a handsomer and vastly more efficient animal. The grain ration should be of ground or cracked corn, and ground oats or bran, the grain being mixed with the hay so that the hay and grain will have to be eaten together, as it has been found that in this way the grain is much more fully digested. As to the amount of grain that shall help make up a ration, that must depend on circumstances, the ability of the owner to provide the grain, also the work which the horse is called upon to do. The thing of chief importance is to get farmers to discard a part of the hay ration and substitute for this discarded hay at least its value in the more condensed nutrition of corn, oats, or bran, the rest will naturally follow. Corn has too much oil to be fed alone.

The same idea holds good in respect to growing colts, with the exception that corn should not be fed them. On hundreds of farms are to be seen dull-eyed, rough-haired, undersized and spiritless colts whose distended bodies during the winter season show plainly that they are the victims of too much hay and too little of the more condensed and nutritious oats and bran. Thousands of colts are annually raised that are not worth even the care and cost of the hay that they consume; but if a colt is worth raising at all it pays to fully develop its possibilities by adequate and nutritious feed. If it does not pay to feed any animal on the farm properly it is pretty certain that it does not pay to keep that animal on the farm at all, and the sooner the farmer recognizes that point the better it will be for his pocket book.

Storing Green Clover in Barns.

There is some risk in storing green clover hay in a barn, it being almost impossible to shut away the air from the sides of the mow, and unless this is done the clover heats. The escaping air inviting the entrance of fresh air from the outside a current is established, slow combustion provided for, and the clover "burns out just as a heap of horse manure is fire-fanged. To cure clover in a mow without previous wilting to evaporate part at least of the sap in it, requires a tight mow that is a close approach to a silo, so that the air cannot come in at the sides and bottom. Without a fresh supply of oxygen, there can be no combustion of the clover. The fermentation ceases, which with a supply of fresh air, would go on until the clover was a charred mass.

To get the best results, the clover mow should be boarded close on the sides and floor. The cut clover should be as clear of rain, or dew, as possible, and evenly spread over the mow. When all but two or three loads of the clover is in, make the top of the mow as level as possible and then roll strips of tarred paper over the surface, lapping the strips. Do not tread on it to break the paper; and scatter on the remaining loads for weight. A layer of boards will be as effectual as the paper. The object of this layer of boards, or paper, is to prevent the escape of the heated air, and if the air imprisoned in the clover, there will be no entrance of fresh air from the outside. In the silo, where the walls are higher than the silage, the air that falls upon the surface is met by the ascending current and only a few surface inches of the silage are affected. In the mow where the sides are somewhat open the entrance of air, can be prevented to a great extent by checking the egress from the top of the heated air. This is accomplished by the lightly weighted cover.

With old hay at command, to alternate the layers of green clover with other layers of the hay, using about a third as much as clover, is a good plan. In curing the escaping dampness of the green clover is absorbed by the old hay. In raking clover for hand pitching, it is not generally known that it is a great saving of "backbone" to rake the field twice. If one has two horse-rakes, one may follow the other, and pull the windrow along a few feet. This rakes up the clover that was left untouched at the bottom of the windrow, loosens up the bunch, and makes the pitching easy with no sticking of the ground.

Protection from Untimely Frosts.

A very slight frost is often the cause of much loss to the farmer. The warm, growing weather is interrupted by a cold wave which lowers the temperature to very near the freezing point. A calm, cloudless night allows so much heat to escape from the air around the plants that the crops are frozen. If the crops could be protected during this one short freeze, it would be safe to plant them in the earliest warm spring weather, and much profit could be gained during the late warm weather in the fall. The blanketing of cold-frames and of seed beds in the spring, and the covering of flowers in the fall, keeps fixed in the air around the plants nearly all the heat which is constantly leaving the soil by radiation. Clouds form a blanket which keeps the lower air warm in the same way, so that frosts do not occur on cloudy nights. Even slight winds bring warm air.

On the calm, clear mornings of early autumn, the farmers to the west of the Great Lakes, blanket their growing crops with a smudge of dense smoke from burning piles of wet straw, green weeds, and tar. The dense cloud of smoke and water vapor hanging over the crop does not allow the warmth coming from the soil to pass the plants, and hence they are not frozen. The water vapor in the smoke also protects, for it would be frozen first, and in freezing must lose heat which would warm the air, just as tubs of water in a cellar are frozen before the vegetables are injured.

In the harmless white frosts, the water vapor of the air is the only thing frozen. Prof. R. C. Kedzie, recommends the drenching of gardens and orchards with water on the approach of frost, to fill the air with moisture. The stirring of the moist soil between the rows will make the air damp. A thorough sprinkling may thus save strawberries and grapes in blossom. In the arid regions, a thorough irrigation of the crop may save it from freezing. Gardens may be flooded.

To protect field crops, a smudge of damp materials and tar is the most available. Place piles of straw, hay, and weeds through the field in readiness for the first frost. Watch the cold, clear nights and, if the wind is not blowing at midnight, dampen the piles and kindle enough to make a good smudge. As the coldest time is from two to four in the morning there must then be a good cloud of smoke.

The General Purpose Horse.

A general purpose horse should be sound, sensible, free from vice, medium size, about fourteen to fifteen hands high, weighing about 1,000 pounds, not too large for riding nor too small for work, should carry his head well up to give him style, should have sloping shoulders, should carry his feet near together to make him sure-footed, should ride well and drive well, should have an easy mouth, should work well to plow or wagon, should drive with single check or double reins, and above all should not be balky.

In breeding general purpose horses it is very essential that the sire should be of the best disposition, should ride and drive and work well anywhere and the nearer thoroughbred the better. The mare should be medium size, stylish, and have endurance. The general purpose horse stands hard work, in the long hot days of summer, much better than the heavy draft horses. For the show ring a horse should not be too fat but should show a little of the rib. The fat on a horse is sure to hide defects and judges should be very careful how they award premiums to fat horses. More attention should be given to breeding general purpose horses for they are intrinsically more valuable, more difficult to find, and are in great demand. It is my experience that a colt takes endurance or bottom from its dam and its disposition from its sire. If this could be fully established it would be of vast importance to all horse breeders. English hackneys make good general purpose horses if crossed with suitable Thoroughbreds. Hackney style is hereditary.

GOLD MINING IN NOVA SCOTIA.

Progress of the Work in Thirty Years.

In 1861 gold was first discovered in Nova Scotia. It was found at Tangier, near Halifax. The manner of working the first mines was very primitive. The gold was rocked in huge rough cradles. No machinery of any importance was introduced for some years. Two men worked a small lead called the knife lead, with only a hammer and pick for some months, and lived in a camp near their mine.

Notwithstanding the fact that the first mines were worked under difficulties, such as inexperienced hands, lack of capital and machinery, the latter causing in some cases seventy men to do the work of a ten-horse power engine, during the years from 1864 to 1884 the average yearly return per man employed was $660. The absense of proper machinery prevented the mines from being worked to any depth, and the consequence was that most of the mines were skimmed and left. Many of them afterwards taken up by more enterprising men and capitalists who prospected, bought, sold, made and lost fortunes, and improved mining by introducing better machinery.

During the first few years of gold-mining excitement in Nova Scotia, American and European capitalists were ready to invest any amount of cash in prospecting and buying. Mines were sold that only existed on paper and in imagination. Barren quartz and unproductive mines were "loaded" by artificial means, claims staked off and quickly sold to eager capitalists. Sometimes pieces of pure gold were shot from a gun into the side of a bank and afterwards dug out as specimens, the intended victims quickly taking the bait.

The end of this boom caused an abatement in mining for some time, but it made fortunes for some and gave experience to others.

There is now very little rash speculating in mining. Before a company invests any amount it must see some chance for a return. The mines are taken up in areas of 150 feet by 250 feet. An annual rental of 50 cents is charged by the government, but if a certain amount of work specified by law is performed on each claim, the rental money is refunded.

There are at present about thirty-four mines in operation. They are mostly in Halifax and Guysboro counties. Among the principal mines are the Salmon River, Waverly, Killag, Oldham Central Rawdon, Fifteen-mile stream, Wine Harbor, Uniack, and Moose River.

In most of the mines work ceases in a shaft when it reaches a depth of 200 or 400 feet; however at Goldenville a shaft was sunk to a depth of 600 feet and made to pay There is no doubt that many of the mines, if properly worked, would pay to a much greater depth, but this as a feature of economy is yet to be developed in Nova Scotia gold mining.

Life in China.

The singular conditions of life at Amoy, the metropolis of the great Chinese province of Fukien, have been the theme of an interesting report of the United States consul at that city, Mr. Bedloe. Amoy, which is a city of about a million people, and the centre of a densely populated region, is perhaps the cheapest place in the world. Workingmen live and support large families on fifteen cents a day, and are said to be as happy as workingmen anywhere.

The daily fare of an Amoy workingman and its cost to him is as follows: One and a half pounds of rice, costing three cents; one ounce of meat, one ounce of fish, two ounces of shell-fish, one cent altogether; one pound of cabbage or other vegetable, one cent; fuel, salt and oil, one cent; total, six cents.

This is much better fare than many European laborers enjoy. In what little time the Amoy workingman can find from his toil, he flies kites, plays shuttlecock, and indulges in mild practical jokes on his friends. He goes to bed early, and worries about nothing.

The wife and children of the Chinese family gather driftwood, edible sea-moss, shellfish, mushrooms and dead branches. Some of the things they pick up they barter for rice and vegetables. Sometimes a woman and her children provide in this way all the food of the family.

Small boys earn a few copper coins by marching in religious processions, at funerals, wakes, exorcisms, weddings and other ceremonies.

At eight years of age a boy begins his fe-calling which usually is the same as his father's. Indeed the children in China begin to work as soon as they can walk. A boy or girl four years old will carry the baby "piggy-back" half an hour at a time, and mind it from dawn to dusk.

The house is usually an independent structure, small, and containing two rooms—a living-room and a bedroom. The windows are small, high and nearly blocked up with wooden, iron or stone bars. The rent of a house of four or five rooms averages five cents a day.

One of the saddest things about child life in China is the early encouragement of gambling on the part of the boys. On every street in the daytime and early evening may be seen groups of children around a peddler, gambling for cake, fruit, or a small amount of money. Gambling is the great curse of the Chinese people, robbing the workingmen of their savings and corrupting the politics of the country.

In spite of their hard work and their few indulgences, Chinese children manage to be happy on the whole, as children will be the world over.

Unseaworthy Ships.

As a Parliamentary paper, there has just been issued the annual return of all ships ordered by the London, Eng., Board of Trade, or its officers to be provisionally detained as unsafe under the Merchant Shipping Act. Between July 1, 1891, and the end of June last 47 vessels declared to be unseaworthy, were kept from being put to sea, of which number all but one were found to be unsafe. The majority of these were wooden sailing ships. Sixty-three vessels (25 of foreign nationality) were reported during the year as "overladen or improperly laden." Since the Act was passed the Board of Trade have used their power of detention in 1417 cases. Seven hundred and fifty-one vessels have been declared unsafe owing to defects in hull or machinery, and 641 were condemned for being laden either above their capacity or in an improper manner. The rest were found after examination to be safe enough to allow of their proceeding to sea.

There are said to be 1,142 patent remedies for cholera in the list at the United States Patent Office.

Sir Edwin Arnold is an optimist in most things, and he includes in his optimistic regard not only Japan but the United States. To a young friend who announced to him a project for entering upon a new business venture, Sir Edwin enthusiastically exclaimed: "I'm glad to hear it. Go ahead, my dear boy. You succeed; of course you'll succeed. You'll make money; everybody makes money in this wonderful country.

A HELPLESS WOMAN.

But She Made the Farm Pay.

One week had elapsed since Joe Meens' funeral. And, owing to the constant presence of friends, it was the first time since Mrs. Meens was a widow that she had been alone; the first time she had an opportunity of looking the future squarely in the face. And this is what she saw: Five children, the eldest a boy of twelve, dependent on her for their training and support; with herself, a family of six to provide for. The present provision for meeting this responsibility was a played-out farm of one hundred acres, but poorly equipped with stock and implements, and ornamented by a thousand-dollar mortgage. It was no wonder that he lone widow sighed as she scanned the prospect.

On his sick bed Mr. Meens had urged his wife, in case of his death, to sell the farm, and adopt one of the following plans: To buy a little place in town, depending on the labor of herself and children for support; or, scatter the children among their relatives, while she with her baby should live with one of her brothers.

"You can't do anything with the farm, Anna," he said. "It's been all I could do to hold the home, and work hard at that, and you are just a helpless woman with a lot of children around you."

His words came to her now, and she thought of his plans over and over and over.

"No," she finally said, "I cannot part from my children. Whatever I do I shall keep my children with me. There is no one who will do so well by them as their own mother. And that means that we cannot live with our relatives. As to moving to town, by the time our debts were settled and a little place bought, the money would be almost gone. And then what would we do for a living? The boys would have to be kept from school and pick up any work they could get. And I—what could I do? I could not leave home to work on account of my children. I am not skilful at sewing. I have knowledge of no work that I could turn to profitable account in town, and I might be reduced to the extremity of taking in washing. I shall have to think this matter over well before I decide."

The next day Mrs. Meens' brother George, a close-fisted farmer, who always planned his charity to his own pocket, called, and in discussing her affairs, said: "Well, Anna, me and Almiry have talked it all over, and we decided to offer you a home with us. Almiry's health is real poorly this fall, and we've been kinder scart we'd have to hire a girl. Hired girls is allfired expensive these days. So we thought if you'd scatter the children around among yours and Joe's relations, we'd give you and the baby your home and board if you'd help Almiry with the work. I b'leeve to goodness 'twould kill Almiry to have a strange girl puttering round 'mong her things, they are such wasteful, keerless critters."

"I don't think I can save your hired-girl bill, George," replied Mrs. Meens, dryly. "I'm not going to part from my children."

"What are you going to do?"

"I haven't decided fully yet, but I think I will stay here on the farm," she replied.

"Didn't Joe tell you to sell the farm?"

"Yes, he did, but I don't think it's best. Joe was good-hearted and well-meaning, but he was lacking in management."

"Well, I'll tell you, Anna, there won' nothing good come of you goin' against Joe's will. A man's jedgment in such matters is worth a good deal more than a woman's. What can a woman like you do on a farm?"

"My plan is," said Mrs. Meens, "to sell fifty acres on the west of the farm and keep the remainder. Then I will engage in something in which the children and I can work."

"Sell the west fifty! Why that's the only good land you've got. There'll be nothing left but bogs and sand hills."

"Well then, I will have to make the best of them," she replied. "John Burrows, you know, holds the mortgage, and he offered Joe several months ago to cancel the debt for that fifty acres. If he is still of the same mind I'm ready to make the trade."

All I've got to say is, you'll bring ruin on your family if you take that step," said her brother. "But if you won't take the last advice of your husband, 'taint likely you'll listen to anybody else."

When Mrs. Meens' plan became public property, advice was poured on her by the ton—had it been weighable matter. And it was all to the point that she was doing a foolish thing. But in spite of grave headshakings and gloomy forebodings, she persisted in her course, and raised the mortgage by selling the land.

Joe Meens has made a speciality of raising stock and hogs. He kept a scrub grade of both kinds of animals, and a greater number than the farm could support; consequently they were underfed both winter and summer, giving poor results in both animals and prices. One of Mrs. Meens' first steps was to dispose of all the stock excepting five of the best cows, and all the swine but a few little pigs. The latter were kept as an economical measure, for converting the surplus milk and waste food to profit.

It was in the fall when Mr. Meens died, and during the winter following the widow and her little boys performed all their outdoor work. The cows were well fed and cared for, and a good supply of butter for sale was the result. But at the opening of spring a man was hired for the summer season. During the winter, too, Mrs. Meens had exercised her mental powers to the utmost in planning how she could best adapt and utilize her farm to her conditions. And after much study and search for information, she decided to raise fruit. She became deeply interested and enthusiastic over the idea, and early in the spring commenced proceedings. A played out pasture lot of four acres was plowed and set out to young apple trees. It was also planted to potatoes, so that the young trees could be cultivated for the first year. Scattered over two acres of ground adjoining the barn, were a number of most unsightly hog pens, straw sheds and cattle yards. They covered a choice piece of rich ground sloping to the south. These were all removed and the ground plowed for cultivation. And the entire plot was set to small fruits, half an acre to strawberries, the remainder to currants, raspberries, gooseberries and grapes. And the manner of setting gave evidence that the widow had sought information from an intelligent source. The rows were set sufficiently far apart that the cultivation could be done with a horse, saving hand work. All through the first season this fruitplot received the best of care, and went into its winter quarters protected by a coverlet of mulching.

The neighbors criticised and prophesied, as people do at any diversion in their midst. But the next season when the fruit began to bear the criticism was changed to approval and the widow was regarded with honest admiration. The strawberries yielded a large, profitable crop. The mother and children spent the days in picking the fruit and early each morning a load was sent to market, a distance of four miles.

It has now been five years since Mrs. Meens commenced her fruit farm, and so successful has been her efforts that there is not a farm in the vicinity that has a larger income than hers. It is true that she and her children had to work, and at times very industriously; but no harder than though they had been dependents in the homes of others, denied the freedom, the independence and enjoyment which they have enjoyed in their own home.

The widow's home has been improved until it scarcely looks like the same place. Her children have had the full benefit of the long winter schools in the country. She has furnished her family a better support, a better home, and surrounded them with better advantages and influences, than though she had cooped them up in a two-by-four town lot, and placed them on a footing with the poor riff-raff of the city. Not only that, but she has proven that a helpless woman is not so helpless after all when she exercises her God-given powers, independently and intelligently, in the direction they should go.

The Jews in Russia.

The persecution of Jews in Russia has two motives, neither of which would be regarded in any other country a justification for this policy. The Jew is—as need not be explained—outside the pale of the Christian community. Even in the most civilized nations there still lingers a sentiment of hostile prejudice against the people of Israel. The sins of the fathers through whose murderous deed, redemption came to mankind, ever since the earliest days when christians became a power in the earth, have been visited on their children. The track of the Jews down the centuries is one of blood. It is a miracle indeed that this race has not been exterminated, as it would have been had there not been a Divine purpose in its maintenance as a witness for the truth it lives only to deny.

The persecution of the Jews in Russia is merely a survival of practices that were general throughout Europe a few centuries ago. The defenders of the Czar declare that, he is animated by the holiest of motives. Their defence when cleared of cant is, that he harries the Jews, in order to show his love of Christ; a proceeding which is as logical as a man getting intoxicated to show his zeal for temperance. A writer in a leading Review recently said: "Russia is magnanimous. She contradicts nothing. She subsidizes no reptile Press. Russia, confident of vindication by posterity, is silent." Poor, amiable Russia, it is sad she is so harshly criticised! As to Russia's silence, it is well known that the gold of that country is spent freely in buying the advocacy of the press of foreign countries. There is no nation so lavish in its bribes, for the cause of Russia is so hateful, so unpopular in the rest of Europe, that only by large payments is she able to secure literary defenders, of the class who would defend Satan for a fee.

But, conscious of the utter inadequacy of the cry of religious zeal as an apology for her crimes against humanity, Russia's defenders, put forth another argument to justify the cruelties inflicted on the Jews in that Country.

The object pursued by the governing classes in repressing the Jews is said to be "sheer self-defence." "The bright Jewish intellect, if allowed free play, would contaminate the whole Empire in a short space of time," so writes one Russian advocate. The "contamination" of Russia by "bright intellect," is doubtless feared by the Czar, for any people whose brains were active would soon make a bold strike for freedom from his tyranny, and demand, and secure, the liberties enjoyed by all civilized nations. The Jew, it seems, acts like yeast in dough, and Russia does not want any intellectual fermentation to be introduced amongst his despot-ruled subjects. "It has been calculated that if the repressive laws of Russia were repealed, and the Jews allowed access to any and every post in the Empire, eight years would not pass before every post worth having, outside the army and navy, would be filled by an official of the Hebrew faith." Such is the real motive of the persecution of the Jews in Russia. The Jew belongs to an educated race; to a race inheriting the force of strong religious principles; the oppression of centuries has only intensified his energies; and the heavy-brained, sodden, semi-barbarous Russian, has no chance in the contest of intellect with the race who were selected by the Almighty to be His agents in revolutionizing the world.

The Jews in Russia where they have been left comparatively free, hold 47 per cent. of the capital engaged in trade, run 67 per cent. of the retail stores, 55 per cent. of the mercantile establishments. They control in equal proportions, the distilleries of brandy, and the retail spirit stores. How enormous in their influence, compared to their number, can be judged by their being *less than five per cent. of the total population.*

The social, intellectual, material, and political, advancement of Russia will receive each a serious check if the main body of the Jewish population is expelled. They have become the veins and arteries of the commercial body, along which has flowed in streams of foreign capital.

That they are avaricious, keen bargainers, oppressive and exacting financiers, we can readily believe. A small body of foreigners, living in a land by sufferance, liable to be expelled any day, having no ties to bind them to the country; must inevitably become all that is charged against the Jews in Russia.

As the Czar is the head official of one of the most ancient, and one of the largest of Christian churches, his treatment of the Jews is a scandalous crime against Christendom, as well as a disgrace to this century. The Jews may well resist our efforts to convert them to Christ, when His religion is said to instigate such cruelties as forcing men, women, and children from their homes amid the severities of winter. It seems to us that a mission to christianize the Czar of Russia, and his officials throughout the Empire, is as much needed as one to do that service to the Hebrew race.

The destruction of so many Russians by famine would not have occurred had their chief Ruler not been destitute of the first principles of christianity. The grain needed to keep his subjects alive was being stored in prodigious quantities in military granaries Such indifference to human agony as the Czar showed in the time of the famine, for which he was mainly responsible, and such callous severity as he has shown towards the Jews, proves him to have the stony heart of a savage, to be indeed a barbarian wearing a christian mask.

Heading Her Off.

Cumso—Wait a minute, Fangle. I want to step into the dressmaker's and pay my wife's bill.

Fangle—Why don't you give her the money and let her go and pay it?

Cumso—She'd order another dress.

A floating newspaper paragraph says that a Halifax lady, aged 80, has just began taking piano lessons. Even the old and feeble can get square with their neighbors when they go about it right.

INDUSTRIAL NOTES.

America's 23,000 papers have 200,000 employes.

A German firm is producing building blocks made from sawdust and acid. They are hard, light, practically non-combustible and cheap.

The latest form of steamship propeller is an English invention. It is designed so that when in motion there is no weight of water on the blades on the rise and fall of the propeller, due the pitching of the vessel.

The impact water wheel, so much used for furnishing power for mines, metallurgical works and electric plants has lately been improved by a new arrangement of multiple nozzle.

The Carpenters' Union, of San Francisco, builds dwellings for members without charge. They are simple and comfortable homes. Seven houses have been built the past year by the union for its members.

One of the latest applications of electricity to mining operations is seen in the Metternich lead mine in Belgium. Each bucket arriving at the top of the shaft makes an electric contact, and a needle in the office indicates by a red line upon a revolving drum the number of buckets brought up.

President Samuel Gompers, of the American Federation of Labor, is hard at work trying to organize the teamsters of this country into a national union but so far has not succeeded, as not enough of localities have so far sent notice to warrant fixing a time and place for a convention.

General Secretary P. J. McGuire, of the United Brotherhood of Carpenters and Joiners of America, submitted a flattering report of his trade for the month of August. Twenty-three new local branches were chartered with a membership of 811, and $9,103.88 were the receipts, while $9,002·10 was expended, of which $7,261.25 represented the sick and death benefit fund.

North Pole Expeditions.

The safe return of Lieut. Peary's expedition, after having accomplished some interesting and more or less valuable scientific results, will be apt to stimulate other expeditions on a similar plan. It is not easy for one to understand the fascination which arctic exploration has for persons of a certain temperament. The record of attempts to reach or get near the north pole of the earth is a record of dreadful hardship and sacrifices from the time of Sir John Franklin's fatal failure to the horrible story of the survivors of Col. Greely's last adventure. This story so sickened the natives that for a considerable interval the official and public ardor which sustains ventures of the kind was weak. The possible gains did not appear to be an adequate recompense for the cruel risks. Adventurers were ready enough, because failure and suffering in such an enterprise confer only less renown than the highest success; but there was an unreadiness to "back" them with the necessary official and financial encouragement. Lieut. Peary's attempt was made upon a different plan from the others, and its comparative safety in execution will recommend it to imitation. He did not attempt to take a vessel into latitudes where the chances were against its ever getting back, and depend upon getting back in it. His party were transported to a point easily reached and left there until sent for. For further advance he depended upon the safer land conveyance by dogs and sledges common to the country. The report he brings back goes to confirm previous reports that Greenland is a great island bounded northwardly by a polar sea. He seems to have reached the limit of possible advance by this means. Others have told of beholding this sea. Whether it covers all the space surrounding the north pole, having Siberia for its opposite shore, no one knows, nor has any one been able to explore it in a vessel. Whether any further definite knowledge of it will ever be gained is purely a matter of conjecture. That there is enough faith and daring in the world to cause many attempts to be made in future time may be safely assumed.

But what useful end will be subserved by finding out whether or not there is an ice-bound, uninhabitable island between Greenland and the next known shore on the opposite side of the pole? Does it matter either with regard to this world or the next? What will be the gain to all men that will make it worth the sacrifice of a man's life or even a dog's life? What boots it to ascertain how cold it may be there? We know already that no human beings can endure it except under artificial conditions. We know by mathematical calculation how long and how far above or below the horizon the sun will be. The exploration of habitable regions where there are human beings to be enlightened and elevated and various novel forms of life to be studied, or which afford motives of commercial interest, is intelligible. The curiosity about the heavenly bodies and the movements of the members of the solar system of which this earth is a part is not unreasonable. But the exploration of the north polar region beyond limits already attained promises to be so barren of useful results and is fraught with such conditions of peril that it appears to be not much better than a wicked misuse of human energy and a waste of noble ambition.

The Butter and Cheese Industry.

Very promising results are reported by the Dairy Commissioner from the first season's operations of the experimental dairy stations. The improved quality of the butter turned out has commended it to the English public, and it is predicted that Canada may yet become a formidable rival to Denmark in this industry. The commissioner intends to introduce more improvements during the coming season to elevate the standard of the Canadian product. When it is considered that as long ago as 1880 we sold England over $3,300,000 worth of butter, the falling off of the trade to $184,000 in 1890 is alarming. But there was an increase of over $300,000 in 1891, and a much greater gain is expected in 1892. The cheese industry, which since 1880 has increased from $3,770,000 to $9,481,000, more than compensates for the loss of the butter trade, but there is no reason why Canada should not greatly increase both. In England the system of storing butter is being abandoned, and there is a demand for fresh-made winter butter which Canada is specially adapted to supply. The special intention being given to our dairying interests will be amply repaid.

The old-time viol was the first instrument of its kind, and furnished the plan of the modern violin, which, however, is 700 years old. It is said that Charles II. introduced it into England. One of the finest makers of violins was Stradivarius, of Cremona, who existed in the early part of the eighteenth century. Some violins made by him are worth thousands of pounds now, and highly esteemed by collectors and performers.