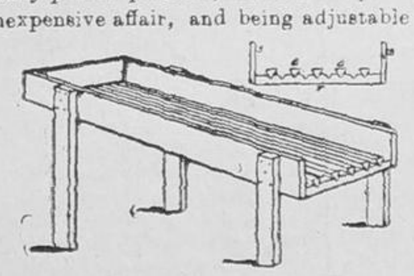
THE FARM.

A Serviceable Potato Sorter.

In sections where large quantities of potatoes are raised, some kind of a sorting apparatus is a necessity. The work of picking over potatoes is something that costs too much to be done by hand, and yet potatoes classed into even sizes always sell better than uneven lots. In the great centres of commercial production of this crop, assorting is always done by some sort of a machine, which varies in the different sections, but are almost always homemade. The one herewith illustrated is in use by many potato planters, and is a simple and inexpensive affair, and being adjustable it



DEVICE FOR ASSORTING POTATOES.

will be found more valuable than many other designs. The general form is usually made eight feet in length fourteen inches wide at the bottom, and eight inches at the top, the sides being six inches high, the whole supported upon four legs nailed to the sides. Six strips eight feet in length, three inches wide and one inch thick form the bottom of the sorter seen in the sketch. The strips, a, are beveled to a sharp edge at the lower side, and the rest in V-shaped notches cut into the supporting strip, r. By taking out or adding to the supporting strips and dividing the spaces, larger or smaller potatoes will pass into different boxes placed along the length of the sorter, the larger ones being discharged at the lower end, the form of the bottom strips preventing clogging. An incline of twenty inches in eight feet will prove about right, although the form of potatoes to be screened will have much to do with this, a long tuber requiring a steeper incline than a round one. If the potatoes are to be placed in the cellar one may shovel directly into the sorter, which should project from the cellar window, and when the tubers reach the cellar bottom they will be properly screened for market or planting. This will prove as effective as hand sorting, and incur but one-tenth of the expense.

Separating Cream.

Butter made from cream in submerged cans has not that delicacy of flavor of butter from cream raised in open cans, and is readily detected by a critical observer. A method is fast coming into use which is simple, inexpensive, a saving of ice and labor, preserves the quality of the open can and saves time almost as well as the mechanical separator, without the expense.

The milk, warm from the cow, is strained into a can till it is half full; then fill the can with cold water, which aerates milk, and immediately reduces its temperature to about 70° F., even in the warmest of weather. All the cream will rise to the surface in less than three hours.

The combined milk and water is drawn by a faucet from the bottom of the can till the cream appears, which is then drawn into a separate vessel. As the cream is separated in less than three hours, the can or cans used for the morning's milk are ready to be used for the night's milk; all that need go into the house is the sweet cream, thus lightening the labor there. The diluted skim-milk is fed to the pigs, the costly butter fat extracted from it being replaced by the cheaper fat of corn meal, in such proportions as are needed to feed to growing or fattening stock.

No time is lost, no labor required, nor expensive machinery to keep in repair when using the dilution process. As soon as the milk is mixed with water the separation goes on naturally, while the farmer is attending to other duties. This quick, inexpensive process, requiring no ice even in the warmest weather, enables the farmer to convert his cream into butter at home without the expense of carrying or having it carried to a creamery. It also enables those farmers who are supplying the large markets to maintain a fair price for their milk. They can manufacture it into butter for a time and reduce the quantity of the milk sent to market till it will command a fair price. The farmers can control the price of milk if they wish, instead of the contractors dictating what they shall take. Any improvement in dairying that will cheapen the cost of production will run up the profit, the same as an increase in the selling. Good pastures are an essential element in profitable dairying. Without manure no good farming is possible.

Wintering Over.

It is time that the stock intended to be wintered over should be selected out, so that the rest can be marketed as soon as possible. As it is necessary, in order to realize a fair profit, to rather push the growth and gain with hogs, it is of no advantage to winter over only those needed for breeding, or that with good treatment will make a satisfactory gain. It is true that where hogs can be given a good range, they will live even during the winter on a comparatively small amount of food, and if living is all that is necessary, a considerable number might be kept. But with hogs rather more than with any other class of stock it is very important, if the best profit is realized, to keep in a good thrifty condition. If this is done during the winter it will be necessary to feed more or less, and feeding increases the cost.

Unless one is reasonably well provided with a good shelter, so that the hogs can be kept fairly comfortable without being obliged to feed too much grain to maintain animal heat, the better plan, in a majority of cases, will be to crowd the feeding during the fall, and get all of the hogs, except the breeding animals and the fall pigs, ready for market in good season. A good pig of any of the better breeds can be made ready for market at any time after they are five months old. To get the most out of them, however, it is very essential that the feeding be liberal, giving all that they will eat up clean, in order to push the growth as much as possible. With all classes of stock it is very important to have it in as good a condition as possible when sent to market, and, while it is not always advisable to feed to full maturity, yet it does pay to feed until the animals are in a good marketable condition.

By selecting out reasonably early a much better opportunity is afforded of feeding when the conditions of growth are most favorable. It is often the case that, with a little extra care, a pig can be made ready for market considerably earlier than would otherwise be the case, and with pigs, at this time, it is often best to push the growth and market rather than to winter over, even if necessary to push the growth considerably in order to secure the desired condition.

THE SIBERIAN RAILWAY.

It is the Most Gigantic Railway Undertaken Ever Planned.

It is estimated that the great Siberian railway, which for the past three years has been in progress, will cost something like a couple of hundred million dollars. The Russian Government is pushing work on it with such energy that it is probable that before the end of his tcentury trains will be running from St, Petersburg through to Vladivostok on the Sea of Japan. Six years is the limit for the time of construction. The Czarewitch cut the first sod at Vladivostok on May 24th, 1891. The length of the railway when completed is to be 4,785 miles, or about twice as long as the Canadian Pacific. On the eastern division trains are running from Valdivostok well into the interior, and it is expected to have the entire line in operation before the end of this year. The Western division is also nearing completion. On the middle section, where the conditions are naturally the most difficult, and where work was begun last year, it is believed that construction will be finished by 1898, or two years earlier than the time originally set. The reason for this is that, by utilizing river navigation, it is found that rails can be laid from three different points at the same time, instead of from but one, as was at first supposed; and also that, most unexpectedly, local workmen prove to be very abundant.

The Government proposes to spend large sums upon auxiliary enterprises for the development of the natural resources of Siberia, which, Mr. George Kennan has told us, are enormous. Branch lines are to be built, the rivers are to be improved, and steam navigation established from points intersected by the railway; colonization is to be assisted, iron works are to be encouraged, and scientific expeditions are to be organized for thorough study of the country. For these purposes, along the line of the first division alone 14,000,000 rubles, or about $10,500,000, have been appropriated.

The political and social effects of this stupendous enterprise—which, indeed, is the most gigantic railway undertaking ever planned—will be of tremendous moment. Its effect on the Russian Government itself will be likely to be revolutionary. The great industrial development that will follow must be reflected in changes in the social and political fabric of Russia, which stands sadly in need of the civilizing influences this vast enterprise will bring. In opening up vast regions for settlement and as fields for commercial and manufacturing enterprise, it seems probable that the world's currents of migration will be turned in new directions. It may, therefore, have a considerable effect upon the future of our own country.

WON ON PURE NERVE.

How Rank Clerk Labouchere Obtained a Bride and a Partnership.

In 1822 Mr. Labouchere, a relative of the present M.P. of that name, was a clerk in the banking-house of Hope, of Amsterdam. One day he was sent by his patron to Mr. Baring, the celebrated London banker, to negotiate a loan. He displayed in the affair so much ability as to entirely win the esteem and confidence of the English banker.

"Faith," said Labouchere one day to Baring, "your daughter is a charming creature. I wish I could persuade you to give me her hand."

"Young man, you are joking, for seriously you must allow that Miss Baring could never become the wife of a simple clerk."

"But," said Labouchere, "if I were in partnership with Mr. Hope?"

"Oh, that would be quite a different thing; that would entirely make up for all deficiencies."

Returned to Amsterdam, Labouchere said to his patron:—

"You must take me into partnership."

"My young friend, how can you think of such a thing? It is impossible. You are without fortune, and"——

"But if I become the son-in-law of Mr. Baring?"

"In that case the affair would soon be settled, and so you have my word."

Fortified with these two promises Labouchere returned to England and two months after married Miss Baring, because Mr. Hope had promised to take him into partnership, and he became allied to the house of Hope on the strength of that promise of marriage.

Her Sorrow Changed to Anger.

"Be mine, sweet one," he implored as he knelt at her feet.

"I am sorry to give you pain," she answered, "but it cannot be. Cease to think about me and find some other girl who will make you happy."

"That's a good idea," he said, as he arose and dusted his trouser knees with his handkerchief; "I was a fool not to think of it before."

Then she was mad.

ITEMS OF INTEREST.

Yellowstone Park contains an area of 3,575 square miles.

At a single bakery in Boston 10,000 pies are baked every day.

Air-brakes on trolley cars, to prevent accidents, has been suggested.

Telegraph companies in Chicago think of substituting girls for boys as messengers.

Parrots are employed at some of the roadroad stations in Germany to call out the names of the towns.

A shower of frogs recently fell in Cambridge, Mass. They were about an inch in length, and quite lively.

Although the Suez Canal is only eighty-eight miles long, it reduces the distance from England to India, by sea, nearly 4,000.

Stuffed white doves, for funeral emblems, are prepared in large numbers in Jersey City. Their bodies are sold to French restaurants.

Last year 3,000,000,000 gallons of beer were drank in Europe. Germany imbibed almost half of it. In the United States, 800,000,000 gallons were consumed.

An ice-cream dealer in Eastport, Me., is a bicycle rider, and wheels around the city with a big advertisement of his business on his wheel. He believes in advertising.

The new rifle used by the Italian Army sends a bullet with such force that it penetrates a log of solid ash to a depth of five inches at a distance of three-quarters of a mile.

In one week a condor has been known to entirely devour a calf, a sheep, and a dog. It often floats for half an hour in the air, describing large circles, without moving a wing.

Food should never be allowed to cool in copper cooking utensils. When fruit is removed hot from the vessels, the acids from the fruit do not combine with the copper to make a poisonous compound.

John O'Leary, a gardener, of South Norwalk, Conn., took a long drink from a garden hose, and in a few moments felt something queer in his stomach. He had swallowed a live frog. A physician relieved him.

Several pupils of the Polytechnic School, in Paris, were kept in after hours, but made their escape through a trap-door which led to the street sewers. Here they were lost, and wandered around for twenty-four hours.

A wise old farmer in Red Bank, N.J., has discovered a certain preventive of hydrophobia. A mad dog rushed at him, with threatening fangs. The farmer dexterously seized the dog by the throat and choked him to death.

Miss Carrie Blood, of Charlestown, W. Va., is a close student of natual history. To add to her store of information on this subject she was attentively studying the formation of a snapping-turtle, when it bit off the tip of her nose.

When Voltaire began the study of the English language, and found that "ague" was pronounced as two syllables, and "plague" as one, he said that he wished that half the English had the first disease and other half the other.

An electric rat has been invented by a Brooklyn man. Cats were in the habit of having nocturnal picnics in his yard. He made his electric rat move slowly around the place, and as each cat pounced upon it, the cat was shocked to death.

Miss Grace Cohee, of Newbern, Ind., to play a practical joke upon a visitor at her house, Mr. Con Beck, arrayed herself as a ghost, and confronted him in the dark. He fired two pistol shots at her, and both bullets entered her body, and a fatal result is feared.

It has been proved that the monkeys of the mountain regions of China actually make pottery, and use the jars to store wine of their own manufacture. The wine is squeezed from mountain berries in the summer, and used as a beverage in the winter, when the water is frozen.

If the Prince of Wales forgets to make a birthday present to each of his near relatives, he is soon reminded of his negligence. No wonder he is bald, for their birthdays come often. He has seventeen brothers-in-law, sixteen uncles, fifty-seven cousins, and fifty-eight nephews and nieces.

John Merkert, of Morristown, N. J., discharged a gun in a hornet's nest. The hornets dashed at him, and he took refuge in a cluster of bushes infested by a lot of bees. The bees and hornets attacked him so viciously that soon his eyes were closed and his face was swelled to twice its natural size.

Bees are being trained as letter carriers by an English farmer. A bee is taken away from home, a letter printed by microphotography is gummed to his little back, and he is thrown into the air. Home he goes, like a carrier pigeon; and the chief advantage he enjoys over his big brother is that he cannot be seen in time of war, or, if seen, could not very well be shot.

Work of the British Post Office.

According to the British Postmaster General's fortieth annual report, issued as a Parliamentary paper, the total number of letters, post cards, book packets, circulars, samples, newspapers, and parcels delivered in the United Kingdom during the year ended March 31st is estimated at 2,853,534,000, an average of over 74 to each person, and an increase of nearly 2½ per cent. compared with the previous year. The estimated total revenue for the year was £10,734,885 in the postal department, and £2,579,200 in the telegraph department. The total expenditure was £10,511,476, of which £7,757,423 had reference to the Postal Department, and £2,754,023 to the Telegraph Department.

Easy to Cure but—.

Doctor—"So your husband is ailing again?"

Mrs. Slimpurse—"Yes; it's insomnia now. He can't sleep a wink."

"Ah, I'll soon cure him of that."

"Yes, I am sure you can."

"Thanks for your confidence. He is worried about something, I presume."

"Indeed he is, poor man. He lies awake all night wondering how he is ever going to pay your last bill."

ARTIFICIAL SILK.

A Swiss the Inventor of the Process which Takes the Silk Worm's Place.

Claude Meeker, United States Consul at Bradford, England, has sent to the State Department a report upon the attempts that are now being made to manufacture artificial silk. His report contains some very interesting points upon the progres made. He says that a company is now being promoted in Bradford for the manufacture of artificial silk. Patents have been taken out in the United States, and it is proposed to establish a company for the purpose of selling rights. The inventor of the process is Dr. Frederich Lehner, of Zurich, Switzerland.

"At the office of the Company," says Mr. Meeker, "there is shown daily the 'spinning frame' in operation, and one can see the liquid contents of a pot on top of the frame turned instantaneously before his eyes into what appears a pure silken yarn or thread."

The Consul gives the following description of the process of manufacture: "All vegetable fibres may, by a treatment by acids and alkalies, be reduced to what in the commerce of chemistry is known as cellulose. Cellulose is, indeed, made from wood pulp, the ruins from cotton, jute and other spinning industries, etc., for a variety of commercial purposes. And it is this material which is the basis of artificial silk. By direct combination with nitric acid it is converted into nitrate, and if a small quantity of sulphuric acid be also added, the latter combines with the water, and, to use a well understood chemical phrase, 'splits off.' The highest

NITRATES OF CELLULOSE

are explosives, and are insoluble in alcohol ether. The pyroxyline nitrate, or lower nitrates, are less explosive and are soluble in alcohol ether. Ordinary pyroxyline dissolved in alcohol ether is gelatinous in character, but wanting in viscosity. A solution containing, say, more than seven per cent. of cellulose is, however, too gelatinous to be readily workable. It is at this point where Dr. Lehner's special treatment of the pyroxyline comes in. By the addition of diluted sulphuric acid to the alcohol ether he breaks down the nitrate into bodies of different physical character, but of the same chemical character, and consequently is able to obtain a twelve per cent. solution which is perfectly fluid and workable under the simplest conditions.

"The process of the preparation of this fluid is a purely chemical one. It is in the subsequent treatment of this fluid and its conversion into a textile fibre that the main interest centres, from an industrial point of view. This process is shown in operation upon a machine which is a modification of the ordinary flyer spinning frame. The fluid, a muddy, yellowish substance, is contained in a glass jar, from which it is conveyed through pipes to a small row of small bent glass tubes, each having an extremely fine nozzle or orifice. These tubes are arranged in a shallow trough of water, the orifice being beneath the water level. As the fluid leaves the nozzle the water removes sixty per cent. of the solvent, and the fluid immediately coagulates, and is drawn off in a remarkably fine filament of brilliant lustre and, when dry, of great tenacity. Half a dozen such filaments are gathered together and spun precisely as silk or wool is spun, only without the drafting arrangement, and at a speed in accordance with the twist required. In passing through the spinning frame it rapidly dries and becomes quite solid, and in the process of drying the remainder of the solvent is removed. The yarn on the spools is practically

INDISTINGUISHABLE FROM TRAM SILK,

except by microscopic or chemical examination. It is, however, in this condition, when perfectly dry, a highly inflammable substance, and it therefore requires to go through a third process—that of denitration—in which by a well-known treatment by ammonium sulphide the nitrate acid is extracted, after which, when the yarn is again dried, it is practically non-inflammable. It is, indeed, less inflammable than cotton or rhea. Chemically, the yarn when denitrated approximates very closely to silk itself. The lustrous character of the material depends upon its transparency and its cylindrical construction. The yarn can be spun to any thickness of count, and a thread, it is claimed, is of even diameter throughout, unbroken, and it may be produced of unlimited length. Indeed, once the spinning frame is properly started and given a continuous supply of the cellulose nitrate, the operation of spinning is practically automatic and may be continued indefinately.

"Samples of yarn, furniture fringes and braids, brocaded silk handkerchiefs, pongees, gimps, sewing silk, etc., dyed in a great variety of shades, were inspected and handled by many gentlemen well able to estimate their commercial value, and the general opinion as to the brilliance of the effects produced was favorable. The artificial silk materials will stand washing and ironing without losing their lustre or without any impairment of their colors.

"It should be stated that the manufacturers and textile experts of Bradford have no confidence in the usefulness and practicability of the new process. It was offered to the Manningham Silk Mills (Lister & Co.,) the largest silk manufactory in England, before it was introduced to the general public, but they declined to recognize its utility. I have questioned a dozen others whose experience in the trade ought to make their opinions valuable, and they have, without exception, stated their belief that the invention would not prove a success."

Something Unusual.

He was so self-conceited that he didn't know there was a little i in the alphabet, and yet he was sweet on a girl. He thought it would be all right, and tried to put his arm around her. He was mistaken.

"Oh, excuse me," he said, "I forgot myself."

"Well, she replied sharply, "if you did, it's the first time I've heard of it."

WHAT UNCLE SAM IS AT.

ITEMS OF INTEREST ABOUT THE BUSY YANKEE.

Neighborly Interest in His Doings—Matters of Moment and Mirth Gathered From His Daily Record.

The largest tobacco warehouse in the world is at Louisville, Ky.

There are 13,000,000 men of military age in the United States.

A sufferer from asthma at Glendale, Pa., has not slept in a bed for 10 years.

The railroads of the United States have present debts amounting to $11,000,000.

At the rate at which Texan timber is being cut the supply will last only 15 years.

Mrs. Henry Ward Beecher was 82 years old Sunday. She is enjoying fairly good health.

The business of sweet corn canning has of late developed a new industry in the dairy districts of New York.

A syndicate of capitalists is to build a $1,000,000 theatre near the corner of Monroe and Clark streets, Chicago.

The Rev. Dr. Edward Beecher, Henry Ward's eldest brother, celebrated his 91st birthday anniversary Monday.

Thomas A. Garfield, the only brother of the assassinated president, is living on a farm 16 miles from Grand Rapids.

Mrs. George W. Childs, widow of the Philadelphia editor, has arranged for the building of the palatial mansion in Washington.

The teachers of Junction City, Kansas, have been forbidden by the local educational board to attend more than one dance per week.

Miss Frances E. Willard suggests a Christian theatre—one conducted in a way that religious papers could advertise and recommend.

The United States Government has cut down the appropriation for the Port Orchard dry dock on Puget Sound from $86,000 to $45,000.

E. P. Bickell, of Cincinnati, became a raving maniac while on a train near Drayton, Ohio, and was subdued only after a desperate struggle.

According to the Society for the Prevention of Cruelty to Animals there has been but one mad dog in New York City for twenty-eight years.

A new church—the American Catholic church—has been organized in the States. The most of these seceders from the Roman Catholics are Poles.

The New Jersey society of Cincinnati devotes the income of a fund of $30,000 for the marking of places in that state made historic by the war of the revolution.

Thirty-five years ago Mrs. Milton Stevenson, of Georgetown, Ky., ran a piece of broken glass into her hand. Last week the glass was taken out at the elbow.

A Texas newspaper says that Mr. and Mrs. Milton A. Baker, "possibly the wealthiest negroes in Texas," are now making a tour of the principal cities of the Old World.

It is said that a man at Heming's Corners, Tenn., shrinks once a month from 180 to 110 pounds and remains in that condition for a week, after which he regains his original weight.

Captain Kent, a pioneer and wealthy citizen of Omaha, has been declared insane and removed to an asylum. He was the promoter of many of Omaha's public buildings and parks.

An old album of stamps collected thirty years ago in Savannah and recently discovered by an heir of the collector, has revealed a number of valuable issues, some of them worth $1,500.

The United States Credit System Company of Newark, N. J., which insure merchants against bad debts, is in the hands of a receiver, its capital having recently been impaired to the extent of $200,000.

Price Goldby, who lives near Trimble, Tenn., was under a tree which was struck by lightning. When he recovered consciousness his skin was as black as a negro's and has been so ever since, but otherwise he was uninjured.

At Greenwood, Ind., the women starved out the only saloon in the place by opening an ice cream parlor next door and operating it so as to make a chance to shake hands with every male acquaintance who passed it on his way after a drink.

The house in which Lindley Murray, the famous grammarian of early American days, was born is still standing about twelve miles south of Harrisburg, Pa. It is a somewhat pretentious log-house, with three rooms and a sleeping loft.

In Massachusetts the experiment of taxing bicycles is proving a failure. Nearly half the wheels are owned by minors, who are entitled by law to $1,000 exemption. In Boston, which has 15,000 wheels, no attempt will be made to levy the tax.

In Jefferson County, Wisconsin, the introduction of dairying has been followed by an increase in the value of farm lands from $16 to $60 per acre and in a reduction in the number of mortgaged homesteads from sixty to seventy per cent. of the total.

Alexander S. Blaine, of Simpson county, Kentucky, left only one request when he died. That was to be buried in his silk-lined broadcloth coat. His maiden sister, with whom he had lived many years, wouldn't allow the request to be complied with.

The capitol at Washington has cost more than $30,000,000. It covers three and a half acres, the dome is 307 feet high and 135 in diameter, and is exceeded in size only by St. Peter's in Rome, St. Paul's in London, the Invalides in Paris and St. Isaac's in St. Petersburg.

Mrs. Lucinda Bradley, a colored woman, died at Bentonville, Ohio, recently, at the age of 93. She has been a slave, belonging to Henry Clay, until she was nine years old, when Clay sold her. After various transfers she was bought by William Bradley in 1859, who took her to Adams County, Ohio, where they lived as man and wife.

Cincinnati's fire department has adopted an innovation in the way of a portable telephone which is carried to all fires and connection made with wires running to the department headquarters. This enables the chief or the marshal in command to keep in constant communication with the headquarters of the organization.