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Coats, Suits, Dresses, Skirts, Furs, Neckwear, Belts, Hosiery and Underwear.

Everything going at 20% Discount.

Goods all New and the Latest stylee.

MRS. F. L. MOOERS

Main Street

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N. B.

Corn, the Greatest Crop

AND AN ABSOLUTE ESSENTIAL TO SUCCESSFUL DAIRYING.

Corn and corn production on the average farm, was the leading burden of an excellent address delivered by Director Grisdal of Ottawa, He was in fine humor for speaking and in a few words outlined the leading qualities in the production of feed.

From their 200-acre Experimental Farm at Ottawa last December they sold \$1,000 worth of dairy products. As they kept a large number of hogs, horses and hens, he could not say exactly what feeds had to be bought to support this dairy. One thousand dollars' worth was his estimate for the year.

"A man who has to feed a dairy herd on a farm, he said, "has a big problem. Cattle must be fed ample at all times. They demand a constant quantity and quality. The feeder has to consider their tastes and must produce feeds that the cows like. Palatability is everything. The three points necessary in producing feed are succulence, variety and quality. In the West they get succulence by applying water to the mixed feeds. A cow likes uniformity of diet but a variety of feeds. The quality may be defined as that peculiar aroma from the feed that makes it attractive to the animal.

"Get these three things into a ration and a cow will almost eat more than is good for her. Yet the ruminant animal demands bulk; her digestive organs must be full. A ration that the cow likes will give from 20 per cent, to 0 per cent. better results than another, even with the same chemical contents."

In growing feed, the Director laid great stress on the corn crop. "Grow lots of it," he said "for it is a stable crop, and never fails under good management. It is the cheap food on the farm; it requires less labor than any other; it is easily stored and will keep even five years in a good silo."

They had their biggest crop of corn at Ottawa last year, which was a wet year, and preparation of the land and its cultivation was given as the reason. He toe three or the four year rotation in Eastern Ontario, Quebec, Nova Scotia and New Brunswick farms:

- 1st. year—Roots.
- 2nd year—Grain.
- 3rd. year—Hay.
- 4th. year—Pasture.

In seeding down he would use a heavy seeding. This cost them \$5 an acre last year but he contended that it paid. He would use a seeding made up of 6lbs. timothy, 2 lbs. alsike, 10 lbs. red clover, 6 to 8 lbs. alfalfa. The hay was thicker with heavy seeding, grew less to stems was harvested earlier, and never failed. The timothy was used chiefly as a precaution rather than as a necessity.

Toronto Week'y Sun'

To Search For An Undiscovered Continent

Grand Forks, N. D., Jan. 18.—Stefansen, discoverer of the "Blond Eskimo," of Alaska, who has been lecturing at the University of North Dakota, where he formerly was a student, announces he has been assured of \$50,000 as expenses for a trip next spring to locate an undiscovered continent in the North. According to Mr. Stefansen \$22,500 has been promised by the National Geographical Society, and a like amount by the American Museum of Natural History of New York. Personal friends have promised \$5,000.

Steamship Missing With 89 of a Crew

New York, Jan. 18.—The freighter El Dorado, of the Morgan Line, controlled by the Southern Pacific Company, has gone to the port of missing ships with her young skipper, Capt. W. E. Woods, and his officers and crew, 89 in all told. The company has given up hope of ever hearing from the ship, one of the last of the Cramps' iron creations, launched at Philadelphia in 1884. She sailed on January 1st from Baltimore with 2,000 tons of steel rails for Galveston. The phenomenal storm is supposed to have smashed her after she cleared the Virginia capes. Nothing was heard of her after she passed out of Chesapeake Bay. United States revenue vessels have been searching for the El Dorado for more than a week, but they have found no wreckage from her. Her heavy cargo, if she had sprung a leak under the battering of the giant seas combed by the gale, would have sent her swiftly to the bottom. This is the belief of most of the officials of the Morgan Line. Only twelve of the thirty-nine lost were native Americans.

State of Ohio City of Toledo,)

Lucas County, ss.

Frank J. Cheney makes oath that he is senior partner of the firm of F. J. Cheney & Co., doing business in the City of Toledo, County and State aforesaid, and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of Catarrh that cannot be cured by the use of Hall's Catarrh Cure. FRANK J. CHENEY

Sworn to before me and subscribed in my presence, this 6th day of December, A. D. 1886.

(Seal) A. W. GLEASON, Notary Public

Hall's Catarrh Cure is taken internally, and acts directly on the blood and mucous surfaces of the system. Send for testimonials free F. J. CHENEY, & CO., Toledo, O.

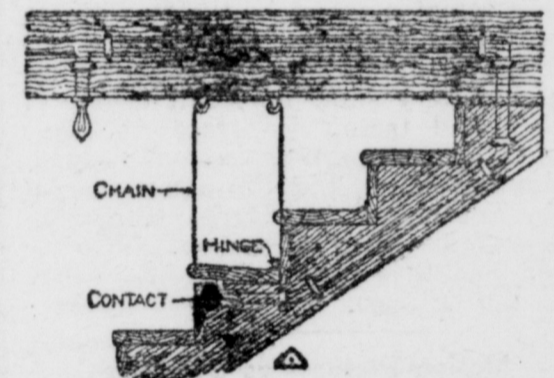
Sold by all Druggists, 75c.

Take Halls Family Pills for constipation.

LIGHT SAVING DEVICE.

Automobile Switch For Making or Breaking Electric Connection.

The electric basement light is many times forgotten and left burning when not in use and sometimes allowed to consume current all night because some one did not turn the switch after arriving at the top of the stairs. Basements in stores are usually lighted in



SWITCH OPERATED BY STEPS.

this manner, and the electric lights are left burning many times by some clerk who is in a hurry and does not stop to turn the switch.

The device here shown was constructed to take care of the electric light in a store basement. It would work automatically, turning on the current when any one would go down the steps and turning it off when he came up. The main electric wires were connected up to a switch located near the end of one of the steps, about four or five steps down from the top. Two of the steps were hinged at the back and their outer edge fastened to a chain that ran over two pulleys screwed into a post above. The chain was of such a length that when the front edge of one step was up the front edge of the other was down. When a person would go down the steps to the basement the lower hinged step would be pressed down last, thus making the connection for lighting the lamp. When going up the upper hinged step would be pressed down last, thus breaking the connection and turning off the light.

A BACTERIAL DUEL.

Remarkable Combat Between Two Microscopic Enemies.

In an interesting contribution to the Comptes Rendus of the Biological Society of Paris M. G. Rosenthal gives an account of the remarkable antagonism between the Bulgarian sour milk bacillus and the bacillus of diphtheria. If the two were planted together on milk serum it was found that they could both be recovered by subcultivation up to the end of the fourth day. After that it was found that only the Bulgarian bacillus survived, having apparently exterminated the other.

Again, if the diphtheria bacillus was planted on a culture of the Bulgarian it failed to obtain a footing. On the

other hand, if the Bulgarian bacillus was planted on a culture of diphtheria bacillus the latter disappeared in the course of a week. It is surely to be hoped that this remarkable power of the Bulgarian bacillus will in the future prove a valuable aid in the treatment of diphtheria. It was also found that the diphtheria bacillus would grow easily upon dead cultures of the lactic acid bacillus and also upon living cultures of the same if the acidity were carefully neutralized.

An Electrical Thermometer.

An electrical thermometer which is very sensitive to slight fluctuations of temperature, has recently been put out by a German company for medical use, to determine the degree of fever. It consists of a coil of platinum wire enclosed in a quartz glass tube, through which a current is passed from a four-volt storage battery. The tube is placed in the armpit of the patient, and a milli-voltmeter indicates variations in the resistance of the coil, due to the heat of the body. The milli-voltmeter traces a temperature curve on a band of paper, and in this way it is possible to study the action of drugs on the patient.

A Huge Submarine.

A young naval officer named Juraviev has submitted to the technical department of the Russian marine ministry designs for a submarine cruiser of 4,500 tons displacement capable of carrying a numerous crew and many torpedo tubes for the latest twenty-one inch torpedo. The craft would not be restricted, as are all present types of submarines, to operations near the shores, but could go long distances to sea and therefore could go out and meet and destroy the battleships of a hostile fleet long before they had reached the ordinary "danger zone" of water.

Vaccine For Cancer.

Cancer, the disease which has baffled medical science for centuries, may be conquered at last. Dr. P. K. Gilman of Oakland, Cal., professor of surgery in the Philippine Medical school and surgeon in chief of the Philippine General hospital at Manila, believes he has discovered a vaccine which will stop the ravages of the dread disease. With this vaccine Dr. Gilman has cured twenty cases in Manila. In his laboratories there he has been working for three years on his discovery and is now ready to give to the world the fruit of his labors.

Mineral Waters In Sweden.

Mineral water is used in Sweden on a large scale both for medicinal purposes and as a beverage, the greatest quantity consumed being manufactured in the country. Imitations of most of the famous natural waters of the world being manufactured there. The number of mineral water factories in Sweden is estimated at 250.

AEROPLANE PROPELLERS.

Principal Problem Is the Selection of Proper Material.

The first aerial screw was proposed and used by Leonardo da Vinci, the great artist, architect and man of learning of Italy, who, like Glotti and Michelangelo, was too big for any one art to contain. After the fashion of most master minds, he went right to the heart of the matter and pointed out the ideal propeller for air navigation, but it was centuries after before the little men around him could get away from the follies of oars, paddle wheels, windmills and such primitive ideas as incumbered their minds, and it was not till 1834 that a series of Frenchmen finally developed the screw for balloon propulsion. Fifty years thereafter it approached the true helix under Dupuy de Lome in 1872.

Colonel Renard in 1888 published the results of his numerous experiments on the losses due to slip, etc., and the causes thereof, and gradually it became apparent that these should not exceed 30 per cent of the work of the motor in any well designed screw. The development of the various types soon again evolved two classes—slow speed and large diameter and high speed with small diameter. At present both classes have their ardent adherents, but in view of the conclusive results in favor of the slow speeds and large diameter, obtained by experiments with ordinary blast fans during the last few years, there is no doubt that the best results are got by the slow speed and reasonable diameter of propellers.

The French never use two propellers, as in some American makes, principally because of the great danger that ensues when one of the screws breaks or stops, if there are two. They all vary in size between two and three meters and 600 to 1,200 revolutions per minute. Specifically the Voisin is 2.3 meters, 1,100 revolutions per minute; Clement-Bayard, 2.4 meters, 750 revolutions; Bleriot XII., 2.7 meters, 580 revolutions; Farman, 2.5 meters, 800 revolutions.

The principal problem at present is to get a strong, light material which will not warp in the weather, will not fly to pieces under the centrifugal force nor bend out of shape and yet be light and shapely. You can buy propellers from the aeroplane deal-

Garden Freshness of "S"



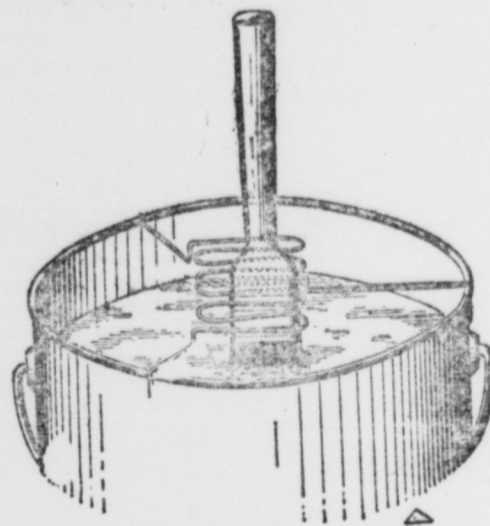
Fresh and fragrant from the gardens of producing country in the world. Ask a package to-day—you'll like it.

scribers.

ers in Paris in solid wood, hickory and ash, glued up of sections of flat pieces, in black walnut, oak, sumac, hickory and holly, or you can get them in solid cast aluminium finely finished, prices varying from \$100 to \$150 each. I think that when Americans get around to it we will stamp them out of sheet steel and clinch lock the edges. —Warren H. Miller in Engineering Magazine.

Holder For Paint Brushes.

The accompanying drawing illustrates a very simple device adapted to suspend a brush in a paint pail so that the bristles will be submerged in the



PAINT BRUSH HOLDER.

paint and thus be prevented from drying. It consists of a wire frame adapted to be supported on the top of the pail and bent back upon itself a number of times to form fingers between which the paint brush or brushes may be secured at any desired point.

Traffic of the Soo Canals.

The Soo canals are the busiest artificial waterways in the world, and the traffic grows apace. The last report of Colonel C. McD. Townsend of the United States army corps of engineers shows that the total value of freight passing through the canals during the season of 1909 was \$626,104,173. The total freight traffic for the year amounted to 57,895,149 net tons, an increase of no less than 40 per cent over the amount in 1908. The average number of vessels per day through the Poo lock of the American canal was thirty-five. Through the Wellzel lock of the same canal it was twenty-two and through the Canadian lock twenty-seven per day. The whole of this immense traffic was confined to a season of navigation of seven months and twenty-seven days.

Paste For Hanging Burlap.

The paste should consist of one pound of good glue dissolved in two gallons of water, into which put enough paste powder to make it stiff, then add to the still warm paste two tablespoonfuls of turpentine or Canada balsam, and stir well. The paste powder consists of eighty-four parts of wheat flour or starch, eight parts of caustic soda and eight parts of sulphate of ammonia. All parts must be weighed.

Cement and Garbage Bricks.

New York has a refuse disposal plant in successful operation at West New Brighton, in which portland cement plays a part. This plant, without causing any starch or fumes, disposes of garbage and other refuse, converting it into solid material, which, when mixed with portland cement in the proportion of 5 to 1, makes excellent bricks.—Cement Age.

FARM ENGINEERING.

Heretofore Neglected Field Offers Rich Opportunities.

In a farming community the county might utilize a hydro-electric development for supplying from a central station the power needed for farming on a modern and scientific basis, or a number of farmers may be interested in the promotion of such enterprises, utilizing the power in common for the purpose of carrying on their farming operations, including the lighting of farm buildings and dwellings. Electric power may be readily applied with the use of motors to all agricultural machinery, such as plows, reapers, mowing machines, pumps, thrashing machines, fodder cutters, feed grinders, washing machinery, creamery appliances, refrigerating installations,

etc. B.

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that all modern engineering ability has

almost exclusively been directed to the

advancement of industrial enterprises

and has almost entirely neglected

farming and agricultural work. Finan-

ciers and promoters will no doubt

find this a great field, particularly as

with the use of electric power many

byproducts of value may be produced

commercially on farms, such as alco-

hol, starch, etc., from the surplus prod-

ucts.—Frank Koester in Engineering

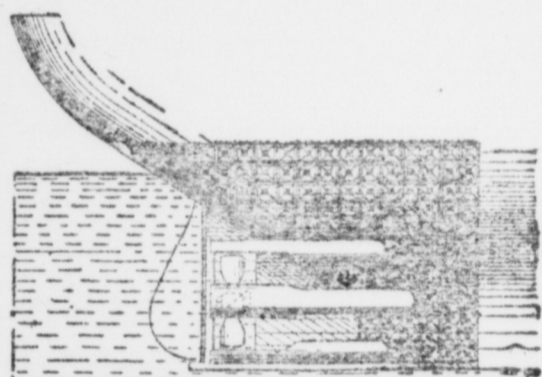
Magazine.

PERFORATED SHEATHING.

Method of Relieving Suction at the Stern of a Vessel.

In the wake of every moving object there is a partial vacuum or rarefaction of the fluid through which it is moving. In the case of a steamer traveling at high speed the tendency to produce a cavity at the stern causes a rush of water toward this part of the vessel, which sucks it down and forms a serious drag. To overcome this drag and to permit the vessel to ride on an even keel an inventor has recently devised a scheme of introducing air at the stern of the vessel, his idea being that since air is less sluggish or dense than water it will more readily flow into the cavity at the stern of the vessel and thus reduce the drag.

With this in view, an experimental model was constructed. The stern was



SHEATHING TO OVERCOME SUCTION.

formed with a double wall, the space between the two walls being open to the atmosphere and the outer wall being perforated. This model was operated in a tank, and it was found that there was an actual reduction of the amount of power required to drive it than when the air supply was cut off.

The accompanying line drawing illustrates a novel form of sheathing which the inventor proposes to apply to the stern of any vessel. The construction of the sheathing is such as to admit the air between it and the hull of the vessel and to feed it out through a large number of square openings with beveled sides so as to relieve the drag of the water.

Platinum and Gold.

The recent high prices of platinum have led to extensive searches for this rare metal in the United States. Last year, says David T. Day, most platinum was produced in the neighborhood of Oroville, Cal., where it is found in the ratio of 1 to 500 of gold. But near Surf, in Santa Barbara county, it is found in the ratio of 2 to 1 of gold, and at Cape Blanco, Oregon, a deposit has been found where the ratio of platinum to gold is 5 to 1. On the west coast of Washington platinum is comparatively abundant in the ratio of 1 to 10 and 1 to 15 of gold. At present the useful accumulations in the United States are limited to a mine in southern Wyoming, a group of mines in eastern Nevada and about seven deposits in connection with placer mines on the Pacific slope.

Automatic Leak Sealer.

The French government claims to have secured an invention which will stop leakages in submarines automatically and has ordered all submarines fitted with the device.