

A FAIRY TALE OF INDUSTRY.

The Great Transformation Scene at Sault Ste. Marie.

Few people have any notion of the stupendous operations going on at Sault Ste. Marie, the little Canadian village on the shores of Lake Superior, where an industrial center of enormous magnitude is now being created. "Five years ago the sleepy little Canadian town of Sault Ste. Marie numbered 2500 inhabitants. Past its doors the sulphur waters of Lake Superior, mightiest of inland oceans, emptied into Lake Huron. Untold millions of horsepower energy lay latent in their idly flowing eddies, but only the slow turning wheels of a few old flour mills stood to mark their commercial usefulness, while but an occasional steamer or a paddle-propelled canoe disturbed the tranquil surface. Almost as in a night of metamorphosis has taken place. "Where once was a scattered group of village dwellings, great stone buildings with towers and shafts and connecting passageway now stand, and at their base deep-dug canals wind in and out, spanned by bridges of massive stone. Nine thousand workmen now earn their living in the shops of Sault Ste. Marie, besides the site where five years ago the total population was but quarter of that number. It is a wonderful story, this growth of the little frontier town into a great industrial center."

A company has been organized in London with a capital of \$10,000,000 to work the extensive ore deposits of Dunderland, Sweden, by Edison's electrical process. As part of the equipment five large capacity steam shovels are being purchased and 40 steel dump cars. The mines are to be worked to supply ore to English furnaces.

Ask Your Dealer For Allen's Foot-Ease. A powder. It rests the feet. Cures Corns, Bunions, Swollen, Sore, Hot, Callous, Aching, Sweating Feet and Itching Nails. Allen's Foot-Ease makes new or old shoes easy. At all Drug Stores and Shoestores, 25 cents. Accept no substitute. Sample mailed FREE. Address Allen S. Olmsted, LeRoy, N. Y.

London's newspapers use up about 200 tons of paper every week day.

Rev. H.P. Carson, Scotland, Dak., says: "Two bottles of Hall's Catarrh Cure completely cured my little girl." Sold by Drugstores, 75c.

A rolling stone never makes much of an up-hill fight.

FITS permanently cured. No fits or nervousness after first day's use of Dr. Kline's Great Nerve Restorer. \$2.00 bottle. Write Dr. R.H. Kline, Ltd., 391 A. Chestnut St., Philadelphia, Pa.

Some men won't be guyed and others won't be guided.

Mrs. Winslow's Soothing Syrup for children teething, softens the gums, reduces inflammation, allays pain, cures wind colic. 25c a bottle.

The laws of gravitation are not responsible for a man's fall from grace.

Piso's Cure cannot be too highly spoken of as a cough cure.—J. W. O'Harex, 322 Third Avenue, N., Minneapolis, Minn., Jan. 6, 1909

You never hear conceited people complaining that life isn't worth living.

AGRICULTURAL HINTS

Faults in Feeding.
There are faults in feeding that should be avoided. The farmer who overfeeds his animals by allowing food to remain within their reach at all times is not economical in his methods. Animals that are permitted to feed on grain or hay at will are subject to indigestion and also evince no disposition to exercise. Plenty of food should be allowed, but only at regular hours, and in quantity suited to the requirements of each individual.

Drinking Vessels for Fowls.
One poultryman says that he finds it advantageous to have two sets of drinking vessels, using one one day and the other the next. By this means one set is sunned and aired in the off day. He thinks he keeps down disease germs by this method. Without doubt drinking vessels so handled will be free from slime and other things that may foster the development of disease germs. Certainly it is wiser to err on the side than to invite disease. We have noticed that when one set of dishes only is used for this purpose they sometimes become very filthy. If disease appears in the flock they offer a good chance for its spread.—Farmer's Review.

No Kicking Cows.
Many cows are made cross and unruly by the men who have the care of them. Take almost any nervous, high strung cow and place her under the care of ill tempered, impatient men, and the result is not difficult to foresee. It will be only a little while before we have a kicking cow. And one kicking cow in a herd will do more to destroy the value of the dairy than can be estimated. This loss will not be with the kicking cow herself, but with all the rest of the herd; for it cannot be disputed that the temper of all will be aroused by the actions of the one which is really unruly, and of her master. Anything that disturbs the quiet of the dairy has a direct effect on the yield of milk, and its worth in dollars and cents. The kicking cow will kick more value out of the milkpail than we can feed in from the meal barrel. But why have kicking cows? What is the use of having such times as are often witnessed in the stable whenever milking time comes round? I remember working for one man when I was a lad who had a cow that was light footed. Before milking her master would put a strap about her and haul her away back toward the side of the barn. In which position she was expected to stand during the process of milking. If she became tired and flounced about there was a scene. Shouts of anger mingled with heavy blows and a general stirring up of the animals all over the barn ensued. It was a shame.

The incongruous kicker might as well go to the butcher shop first as last. It would be money in the pocket of her owner, even though she were the best cow in the barn. Then her progeny should also be weeded out, for it is a fact that kicking cows leave their mark on their calves. Sometimes by taking the heifers from such cows and treating them kindly, as all heifers should be treated, one may succeed in training them to stand nicely. As a rule we do not have patience enough with our heifers when teaching them to be milked. No cross, impatient man should ever try to break a heifer or teach a calf to drink. It is a waste of temper in the man and a risk of spoiling the cow. The most nervous cow may be controlled by uniformly kind speaking and handling. It pays to do this—pays in dollars and cents, and in the better sense which touches the higher life of the man.—E. L. Vincent in New York Tribune.

Preparing Wool for Market.
Wool growers should take more to heart the appeals of manufacturers to pay more attention to the preparation of wool on the farm for market shipment. By so doing they would save waste and expenses which now eat rapidly into their profits. A good deal of the wool received in the markets is in filthy condition, packed without any idea of what manufacturers require, and practically in such a way that a great deal of labor is required to resort and prepare it for sale. All this labor in the markets must be deducted from the profits of the growers.

The practice in many places of marking sheep with pitch, paint or some other sticky substance causes a great amount of loss and prejudice. When such marks appear on wool, dealers avoid it, and if forced to buy they make deductions for the waste through clipping. It is impossible to scour out such marks, and the easiest way is to clip off the wool and throw it away. In a big bundle of fleeces this loss amounts to considerable. If it is necessary to mark sheep it is better to use some substance that can be washed or scoured off on the farm before the wool is shipped to market. It may make quite a difference in the price and profit. In a market that is well supplied with stock a small thing may determine the reduction in prices for any particular lot of goods. Some growers prepare their wool so neatly for market that they average almost a cent a pound more for it than others, and yet the wool is not actually any better. In packing wool for shipment careful grading and separation of different kinds should be made. All fleeces should be tied with soft twine, and not with sisal or binding twine. No more than necessary should be used, and the knots should be clipped off close.

A bundle of wool tied with a dozen unnecessary knots, and with many loose ends sticking out, always gives a bad appearance to the package, and in many cases prejudices buyers from the whole lot. They rightly reason that if the grower is careless in this regard, he may be expected to be careless all through his work, and there will be a loss of time or waste of material on opening the package. The reason manufacturers dislike to have the wool tied with sisal or binding twine is that small particles of it adhere to the wool and damage it.—S. L. Miner in American Cultivator.

Effect of Fertilizers.
Potatoes are grown extensively in this country, and more experiments have been made with them than any other crop, yet the matter of applying manure or fertilizer to the potato crop is one on which growers differ materially. It is possibly the case that many varieties, as well as the peculiarities of soils and climates, may have much to do with the lack of unanimity among growers, but it is safe to claim that there is a wide field open for work in the use of plant foods for potatoes. The same difficulty presents itself in Europe, where experiments have been conducted for years. Professor Wright, of the West of Scotland Agricultural college, concludes that large crops of potatoes can be grown either with a heavy (20 tons) dressing per acre of barnyard manure, or with half that quantity when supplemented with fertilizers. The use of fertilizers alone will also give large crops. In this country the use of barnyard manure in some sections induces disease among the tubers and vines. Experiments show that the increase produced by manure on potatoes is entirely in tubers of large size, the yields of small tubers while light dressings of manure produce a much greater proportionate effect, and a larger local return can be obtained from a limited quantity over a given area. Fertilizers when added to large dressings of manure are not so effective as when added to small dressings. Heavy dressings of manure, without fertilizers, give potatoes of a rather watery or inferior quality, light dressings being less injurious, while the use of fertilizers with manure tends to greatly improve the quality, but potatoes of the best cooking quality and possessing the highest nutritive value can be grown by the use of fertilizers alone.

Concerning the use of the several forms of fertilizers on potatoes it was demonstrated that the addition of potash in any form, when applied with barnyard manure, increased the dry matter in starch in the tubers, and thus improved the quality. It also increased materially the proportionate yield of large potatoes, which adds to the market value of the crop. The most profitable quantity of potash to apply, according to the results of experiments, is 84 pounds per acre, represented by about 170 pounds of sulphate of potash, any increase in that amount being not so beneficial or profitable. It is possible to use more potash and secure larger yields, but the amount mentioned will give the most profit in proportion to expense. When fertilizers only are used the potash should be given in the form of sulphate of potash. In these experiments the finest quality of potatoes were grown with the use of sulphate of potash, kainit, applied in the spring, whether given with or without barnyard manure, gave inferior results, both in yield and quality of the tubers, proving somewhat detrimental to the quality. Muriate of potash gave good results when used in fertilizers, but when applied with barnyard manure it proved even more effective than sulphate of potash in increasing the yield, but did not produce tubers of the highest quality. Nitrate of soda, applied as a top dressing at the rate of 112 pounds per acre, and put on immediately after the first weeding of the crop, produced no injurious effects on the quality of the potatoes.

In the growing of potatoes the farmer desires the largest possible yield and the large majority of them have succeeded in so combining barnyard manure and fertilizers as to harvest enormous crops, but the experiments mentioned include something more than yields, the object being to also observe the effect on the quality of the tubers. It is the quality that gives the profit, as the difference in prices may largely offset the differences in yields. Kainit, which is a crude sulphate of potash containing a large proportion of common salt, is used extensively in the manure heap in order to prevent the loss of volatile matter, and it increases the value of manure for some crops, but when applied to potatoes it does not improve the quality. Wood ashes, which are rich in potash when produced from certain hardwoods, would no doubt prove valuable for potatoes, but, as ashes also contain lime, the effect may be to injure the crop, as it is not known that lime is favorable to some diseases, and for that reason should not be applied. A fertilizer for potatoes should not only contain potash, but also nitrogen and phosphoric acid. In some cases the use of superphosphate and sulphate of potash has given satisfaction, the superphosphate containing sufficient nitrogen if the soil is also fertile. Farmers should experiment with small plots in order to test the advantages of the plant foods for increasing the quality of the tubers, as any experiments made with certain varieties and on soils that are variable may be of but little advantage in sections where the conditions differ from those of the experiment.—Philadelphia Record.

SCIENCE AND INDUSTRY.

Australian blue gum timber has been chosen by British engineers for harbor works because it will sink if washed away, and will not endanger shipping.

A new electric light "shifter" has been invented which, it is claimed, puts the light, not approximately near the efficient point over the desk, but just in that particular position. The mechanism can be screwed to the wall or ceiling.

The egg-hatching process of the incubator, says an expert in the breeding of fowls, is remarkably sensitive to vibration. The rumble of a train, or passing wagon, even the banging of a door may spoil a whole incubator full of eggs. A thunderstorm always gives the breeders a scare.

Geologists state that Washington, Oregon and much of Idaho are largely overspread with lava. This great desert of molten rock, 200,000 square miles in extent, and 4000 feet deep, has undergone great changes since its volcanic days. Rivers have diligently plowed out canyons famous for beauty and grandeur. Between the rivers are rolling plateaus of rich, deep soil—the vast wheat and grass lands of the Northwest.

Formerly, when paper for newspapers was made of rags, old papers had some value in the eyes of the old rag man, but in these days when all such paper is made from wood pulp paper with printing on it is worth nothing. An English paper maker has lately demonstrated a system however whereby he repulps old newspapers and makes clean new paper from them, of a quality equal to the original. The main difficulty in such a process is to get rid of the carbon of the printing ink, which does not yield to bleaching.

It was recently suggested to the Institution of Civil Engineers in London that solid metals might reveal by their structure the vibrations to which they have been subjected. Professor Roberts-Austen made a series of experiments, showing that a wave-structure may be imparted to the surface of mercury by the vibrations of a tuning-fork. He also showed that a surface of solid lead possesses a structure resembling that of a vibrating surface of mercury. This was done by subjecting the lead to vibrations similar to those used with mercury.

The flow of Texas rivers has been studied by the hydrographic parties of the United States Geological Survey. Daily records of water heights and frequent measurements by currentmeter of the velocity and volume of water carried by each stream are made. The economic value of such hydrographic surveys is well illustrated by two examples. The flow of the Brazos river at Waco was the lowest on record during the past season and the Waco dam, with a head of 30 feet, developed only 130 horse-power. The minimum flow of the Colorado was found to be only one-fifth of what was popularly estimated at the time the bonds were issued for the dam at Austin. The comparatively small cost of such surveys repays taxpayers and investors a hundred fold.

Coal Mining Machines.
Actual figures referring to the use of coal-cutting machines in the two countries show that 311 such machines were in use in Great Britain in 1900, whereas in America there were 3907, or about twelve and a half times the number, this figure corresponding approximately with the ratio of the percentages cut by machines in the two countries, namely, 11.2 per cent and 20 per cent. It should be pointed out, however, that as British mining is very largely on the long-wall system, the 311 machines include a large number of long-wall and heading machines, while the 3907 machines in America include 2350 of the pneumatic percussive type, which is, of course, a much smaller and cheaper machine. Still, in the States there were 1509 chain breast machines and 48 long-walled machines, and the increase in the percentage of coal-mining by machinery in West Virginia was from 9.27 per cent in 1899 to 15.09 per cent in 1900. The corresponding increase for Pennsylvania (considering the bituminous coal only) was 29.67 per cent to 33.65 per cent.—Engineering Magazine.

Tips on Walking.
Steps that are quick are indicative of energy and agitation. Tip-toe walking symbolizes surprise, curiosity, discretion or mystery. Turned in toes are often found with preoccupied, absent-minded persons. The miser's walk is represented as stooping, noiseless, with short, nervous, anxious steps. Slow steps, whether long or short, suggest a gentle or reactive state of mind, as the case may be. The proud step is slow and measured, the toes are conspicuously turned out; the legs straightened. Where a revengeful purpose is hidden under a feigned smile the step will be slinking and noiseless. The direction of the steps wavering and following every changing impulse of the mind inevitably betrays uncertainty, hesitation and indecision. Obstinate people, who in argument rely more on muscularity than on intellectual power, rest the feet flatly and firmly on the ground, walking heavily and slowly and stand with the legs firmly planted and far apart.—St. Louis Star.

When a girl has a single idea, it is generally to get married.

MOTHER AND DAUGHTER

Cured by Pe-ru-na of Systematic Catarrh.

An Interesting Letter From Mrs. M. K. Bousch, of Richmond, and Her Little Daughter, Pearl.



Mrs. M. K. Bousch, Richmond, Va., writes: "I had catarrh all through my system for two years and could get no relief. I was advised to try Peruna, and I have to thank the doctor for it and am well and better now than I have been for years. I can advise any one who has catarrh of any part of the body to take Peruna. My little girl, who is eleven years old, had catarrh, but was cured by Peruna. Before I began to take Peruna I was sick all the time, but now I am entirely cured and all praise is due Peruna."—Mrs. M. K. Bousch.

A baby I contracted catarrh, and was doctored by several good physicians, but none did me any good. My mother was taking Peruna at the time and gave some of it to me, and I soon began to improve, and am now well and fat as a little pig. I am twelve years old. The doctors told mother I had the consumption, but it was only catarrh.—Miss Pearl Bousch.

It is no longer a question as to whether Peruna can be relied on to cure all such cases. During the many years in which Peruna has been put to test in all forms and stages of acute and chronic catarrh no one year has put this remedy to greater test than the past year.

Peruna is the acknowledged catarrh remedy of the age. Dr. Hartman, the compiler of Peruna, has written a book on the phases of catarrh peculiar to women, entitled, "Health and Beauty." It will be sent free to any address by The Peruna Medicine Co., Columbus, Ohio.

If you do not derive prompt and satisfactory results from the use of Peruna, write at once to Dr. Hartman, giving a full statement of your case and he will be pleased to give you his valuable advice gratis.

Address Dr. Hartman, President of The Hartman Sanitarium, Columbus, Ohio.

SKIN-TORTURED BABIES

Sleep for skin-tortured babies and rest for tired, fretted mothers in warm baths with CUTICURA SOAP, and gentle anointings with CUTICURA OINTMENT, purest of emollients and greatest of skin cures, to be followed in severe cases by mild doses of CUTICURA RESOLVENT PILLS. This is the purest, sweetest, most speedy, permanent, and economical of treatments for torturing, disfiguring, itching, burning, bleeding, scaly, crusted, and pimply skin and scalp humours, with loss of hair, of infants and children, as well as adults.

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Use CUTICURA SOAP, assisted by CUTICURA OINTMENT, the great skin cure, for preserving, purifying, and beautifying the skin, and for all the purposes of the toilet, bath, and nursery. Millions of Women use CUTICURA SOAP in the form of baths for annoying irritations, inflammations, and ulcerative weaknesses, and see many sanative, antiseptic purposes.

COMPLETE TREATMENT FOR EVERY HUMOUR
Consisting of CUTICURA SOAP to cleanse the skin; CUTICURA OINTMENT, to heal the skin; and CUTICURA RESOLVENT PILLS, to cool and cleanse the blood. A SINGLE SET is often sufficient to cure the most torturing, disfiguring, itching, burning, and scaly humours, rashes, and irritations, with loss of hair, when all else fails.

CUTICURA PREPARATIONS are sold throughout the world. Retail Dealers: Dr. J. C. Watson & Co., London. French Depot: 5 Rue de la Paz, Paris. Export Dealers: Wm. Carter, Sole Prop., Boston.

Washing in the Orient.
The Japanese rip their garments apart for every washing and they iron their clothes by spreading them on a flat board and leaning this up against the house to dry. The sun takes the wrinkles out of the clothes and some of them have quite a luster. The Japanese woman does her washing out of doors. Her wash tub is not more than six inches high. The hardest-worked washerwomen in the world are the Koreans. They have to wash about a dozen dresses for their husbands and they have plenty to do. The washing is usually done in cold water and often in running streams. The clothes are pounded with paddles until they shine like a shirt front fresh from a laundry.

The mandarin duck is one of the most beautiful of aquatic birds.

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"I have used Ayer's Hair Vigor for over thirty years. It has kept my scalp free from dandruff and has prevented my hair from turning gray."—Mrs. F. A. Soule, Billings, Mont.

There is this peculiar thing about Ayer's Hair Vigor—it is a hair food, not a dye. Your hair does not suddenly turn black, look dead and lifeless. But gradually the old color comes back,—all the rich, dark color it used to have. The hair stops falling, too. \$1.00 a bottle. All druggists.

If your druggist cannot supply you, send us one dollar and we will express you a bottle. Be sure and give the name of your nearest express office. Address, J. C. AYER CO., Lowell, Mass.

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Dizzy? Headache? Pain back of your eyes? It's your liver! Use Ayer's Pills.

Want your moustache or beard a beautiful brown or rich black? Use Buckingham's Dye. 50 cts. of druggists or R. P. Hall & Co., Nashua, N. H.

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To say that I am surprised at their action will convey but a slight idea of the value I set upon Ripans Tablets. I derived immediate benefit and to Ripans Tablets am deeply indebted for feeling as I do to-day. If the people of this country knew the efficacy of Ripans Tablets for stomach and head troubles they would be relieved from many afflictions.

At druggists. The Five-Cent packet is enough for an ordinary occasion. The Family bottle, 50 cents, contains a supply for a year.

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