

Catch That Cough!



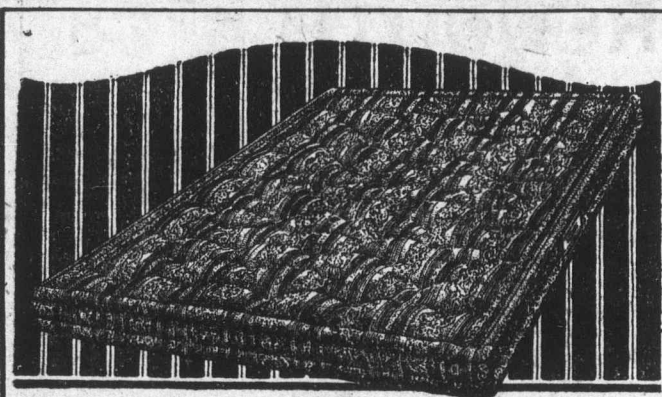
At this time of year a cough is especially dangerous, because it is likely to hang on all winter, and may develop into a more serious condition.

Take NYAL CREOPHOS

when the first symptoms appear, and keep on taking it until entirely well. Creophos relieves coughs, colds and bronchitis, and at the same time builds up strength and vitality.

Siddall Drug Co.

STORE CLOSED AT 8.30 EVERY EVENING EXCEPT SATURDAY



Mattresses of Certified Quality

YOU should know the Mattress made by Simmons Limited—firm but soft, giving to all the contours, yet holding your spine level in any sleeping position.

Sweet and clean through and through—of materials sanitary beyond question.

Certified by the Simmons Label—your unfailing assurance of an absolutely sanitary mattress.

We offer a wide assortment of grades in Simmons Mattresses. Any grade you select can be depended upon to satisfy you.

HARPER BROS.
WATFORD

SIMMONS BEDS

Built for Sleep

Sarnia Business College

IT'S A GOOD SCHOOL

HOW MUCH TALK WILL MAKE A CUP OF TEA?



Would it surprise you to know that it is possible to see your voice?

If, when you say "Central" into your telephone, you could see the effect of your voice on the delicate current that is passing over your line, it would appear something like the diagram.

Suppose you spoke into a telephone and heard your words repeated, but minus all the "vowel" sounds or with all the consonants dropped. Would you believe your ears?

What sort of noise do you suppose a million people talking at one time in one place would make? What use is made of the tongue, lips, etc., in producing the various parts of speech?

And the vocal cords—what do they do?

What is a dyne?

Why are "F" and "S" confused?

These and many other questions would have been answered for you had you been present when Dr. Jones of the Bell System Laboratories, demonstrated and explained to a group of engineers at McGill University recently.

"A dyne," Dr. Jones explained, is the unit of measurement we use in our research work, and, for the benefit of the uninitiated, he explained the equivalent of a dyne would be found in a piece of human hair just one third as long as it was thick.

Can you conceive of such an atom? Just think of a human hair. How thin

OUR SUPPLY OF PEAT

BOGS MAY YET BE USED TO SOLVE FUEL PROBLEM.

There Are 36,000 Square Miles of Bog Scattered Throughout Dominion of Canada, and It Will Prove Valuable When Some Method of Properly Draining and Drying the Peat Has Been Discovered.

It seems of late years that every succeeding winter supercedes the last one in the intensity of its fuel problems. Every year we hear the dealers cry, "Coal Shortage! Coal Shortage!" and every year we are forced to pay more and more for every ton of coal that we must use. Unfortunately, we have been abjectly dependent on the wishes and extortions of the coal barons of Pennsylvania, for though Nova Scotia and British Columbia both are possessed of coal deposits, the freight rates make delivery from those quarters a negligible consideration.

Thoroughly understanding the magnitude of the task before it our Canadian Government for some years past has been carrying on exhaustive experiments as to the practicability of using peat as fuel. For, although perhaps it is not generally realized, Canada is particularly rich in peat bogs. There are some 36,000 square miles of excellent peat bogs scattered throughout our Dominion, but of all the provinces, Ontario takes the lead in the quantity and quality of the great unused peat bogs which are found throughout her many counties; and it may be that at some future date, if experiments prove successful, Ontario will not only be providing herself with an excellent and cheap fuel, but will be able to send quantities to other parts of Canada as well.

Ontario's great wealth of peat bogs in width of distribution and extent is not exceeded by any country of equal area in all the world. This is explained to a great extent by the great suitability of Ontario's climate for the formation of peat bogs. The long rainy seasons occurring twice a year; the long, cold winters to freeze over the bogs, and keep them in perfect preservation; and the long spells of heat and drought which help to dry out the peat; all these are excellent conditions for the perfection of peat bogs. These great peat bogs of Ontario are looked on by the wise eyes of the Department of Mines as quite capable of furnishing a native fuel which would create a new industry of great magnitude, employ labor and capital on a large scale, and utilize resources which are now almost dormant. Of course, there are still some difficulties in the way, but we have the assurance of the Government that the peat question is receiving the most thorough consideration and investigation; while Prof. Wilson, of McGill University has assured us that within a radius of forty miles of Toronto are peat bogs which would yield approximately seven million tons of peat fuel.

In this Canada of ours we really know very little about the use of peat as fuel, but we need only think for a few minutes about the lavish use of peat in the old lands to realize its utility and economic advantages. Scotland and Ireland have burned it in the ordinary dried form for many centuries. Germany, Holland, Russia, Denmark, and Sweden all use peat in ever-increasing quantities for domestic purposes, and also in steel and glass furnaces, firing locomotive boilers, generating electricity, and in these countries it is used both in its solid and gaseous forms. Russia uses 7,000,000 tons of peat fuel every year; Sweden uses over 2,000,000 tons each year; and trim little Holland, whose comely housewives are especially neat and thrifty, will use no other fuel, and only peat is used in the Dutch brick-yards.

As a fuel, peat

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is most satisfactory. When first placed on the fire, it burns with a short blue flame until the grate spaces are covered with embers, when it emits an intense heat, easily controlled, and a peat fire will not go out until every atom of fuel has been consumed. Peat makes no clinker, but leaves considerable ashes, which are light and powdery; and one of its greatest advantages is its price, for it has been estimated that peat should sell in Ontario for about three dollars per ton at the place of production.

Some attempt has been made in Ontario in the past to place peat on the market as fuel, and indeed, as far back as 1866 an attempt was made to market peat by a man named Hodges, but he met with little success. For the real and difficult problem of peat fuel manufacturing lies in removing the water, and this problem has wrecked many a budding scheme for the use of peat. A growing peat bog contains from 85 p.c. to 90 p.c. of water, and peat is so difficult to really dry, that it will appear to all intents bone-dry, while in reality 30 p.c. of water may remain in it. Great heat is necessary to finally remove all the moisture, and practically all the peat bogs of Ontario must first be drained before much work can be done on them.

Before the war the Government had already experimented with success at a small peat plant at Alfred, Ont., and peat fuel was delivered from there to Ottawa and Montreal at \$3.25 per ton, while in eighty-five days 2,400 tons of peat fuel were manufactured. This plant, however, was purchased by a private concern and closed down shortly after the war broke out, not only because of war conditions but because of manufacturing difficulties as well.

The seven principal bogs of Ontario are Welland, Beaverton, Perth, Brunner, Brockville, Rondeau and Newington.

Leacock's greatest joke.

I can't help congratulating Stephen Leacock on the making of his biggest and best joke to date, writes Londoner. Though we have all laughed consummately at his "Literary Lapses" and other enjoyable punniments, I don't believe anyone realized what a king of jesters we had among us till he electrified us the other day by calmly suggesting that our income-tax ought to be abolished! Only a humorist from another country could safely have ventured on a joke like that. If a native one had tried it, he would have run serious risk of an enquiry into the state of his mind. But I wonder if Leacock himself realizes, even now, how funny he was?

To Market Honey.

It is expected that Ontario's honey crop next season will be marketed largely on the co-operative system, as a result of the activities of the committee appointed recently by the Ontario Bee Keepers' Association, and with the assistance of the Ontario Government. The honey will be graded and have a registered brand for the protection of consumers. Each package will have a distinguishing number, by which it can be traced back to the producer.

Will Preserve Landmarks.

A commission whose duty it will be to preserve ancient and historical landmarks in the Province of Quebec will be appointed. It has been announced by Hon. Athanase David, Provincial Secretary.

A Large Elevator.

It is planned to begin construction this year, at Montreal, on what will eventually be the largest elevator in the world, with a capacity of ten million bushels.

Thirty-five electric motors control the movements of the giant telescope recently installed in California for astronomical observation.

The little child of Frank McDonald, of Hastings, while playing with other children found some coal oil and drank some of it before the mother realized what the little one was at. Medical aid was at once summoned and the child is doing as nicely as could be expected.

WATER IN FARM HOMES

Compression System Will Give General Satisfaction.

Water Pumped Into a Metal Tank Against Compressed Air—Various Methods of Working the Pump—Air Valves a Necessity—Seven Steps to Success in Poultry Culture.

(Contributed by Ontario Department of Agriculture, Toronto.)

In my last article I described briefly the attic tank system of water supply for the rural home. This system has given very good satisfaction in the past, but I doubt if it will be installed in many homes in the future, as there is now on the market something very much superior in many respects. I refer to the compression water system, which I will try to describe in a few words.

How the System Operates.

The chief feature of this system is that water is pumped into a strong air-tight cylindrical metal tank against the entrapped air which is compressed in the upper portion of the tank, and the compressed air constitutes the power to drive the water out of the tank when a faucet is opened on the discharge line. This is very simple. The metal tank will vary in size according to the amount of water used, but a common size is 6 feet by 2 1/2 or 3 feet. It should be kept about full of water and at a pressure varying from 40 to 45 lbs. Greater pressure, if required, may be secured by pumping the water to a higher level than named in the tank, or by pumping some air into the tank before any water is pumped in. A water gauge is attached to one side of the tank to indicate the height of the water in the tank, and on the discharge pipe close to the tank is a pressure gauge. The tank must be kept in a frost-proof place—say the cellar, or an underground pit. The water keeps cool, clean and fresh in this tight tank.

Methods of Working the Pump.

There are many different ways of operating the pump in order to fill the tank: By hand, by windmill, by gasoline engine, or by electric motor. A few minutes of pumping each day by hand will keep the ordinary-sized house supplied with plenty of water. When the pump can be operated by windmill or electric motor, there is the great advantage of automatic starting and stopping of the pump. The automatic electric water systems of the present day are very convenient and also very efficient. In case of shallow wells and cisterns the pump and motor can be located inside the house or barn. As farmers get electric current these automatic systems will become very common both for shallow and deep wells. The automatic systems require very little attention and are very noiseless. There are several styles or designs, but any of them of reputable firms will give good satisfaction if the installation has been done properly and if the outfit is given good care.

If soft water as well as hard water is required under pressure, two tanks are necessary, one for soft and one for hard. Only one pump is required in this double tank outfit.

Air Valves a Necessity.

Pumps used in connection with compression systems must be provided with an air valve for renewing the air in the tank because the air dissolves in the water and escapes with it. If means for pumping in air were not provided for, the tank would eventually become water-logged and the system would be rendered absolutely useless.

The compression water system is described and illustrated in Bulletin 267, entitled "Farm Water Supply and Sewage Disposal." A copy may be secured without cost by dropping a line to the Department of Physics, O. A., Guelph, Ont. Give us a chance to help you to solve your water supply problem.—R. R. Graham, O. A. College, Guelph.

Seven Steps to Success in Poultry Culture.

1. Keep accurate records. Little progress can be made without this first step.
2. Feed a properly balanced ration. Such a ration furnishes nutrients for growth, maintenance, fattening and eggs. The production of eggs must be a constant aim.
3. Give proper care and comfort by good housing and management. Discomforts are: Extremes of heat and cold, hunger and thirst, foul air and dampness, and diseases and parasites.
4. Keep standard-bred, utility stock. There are five good breeds for the farm: Plymouth Rock, Rhode Island Red, Leghorn, Wyandotte and Orpington. Varieties of these have been bred for heavy egg-production.
5. Breed from the best, both male and female.
6. Sell unprofitable stock.
7. Market graded products. Maximum returns are secured from graded products. Markets demand a constant supply, and this calls for community co-operation.