

HERE'S A PHONE WITHOUT CENTRAL

Unique and Useful Invention
of Canadian.

SYSTEM IS WORKING IN PARIS

Wonderful Method By Which the
Machine Finds the Number Cal-
led—Brantford Man Inventor.

London, Dec. 5. — With a view of showing the French postoffice the immense advantages which would result from the adoption in Paris of an automatic telephone system, which needs no girl operators, Mr. G. W. Lorimer, a young Canadian engineer, who is backed by powerful American capitalists, has fitted up an exchange in Paris, where, for the last four months, the technical committee of the French Government telephone department has been closely investigating the system.

It is not known what technical objections, if any, can be raised against Mr. Lorimer's system, but, judging from what I have seen for myself, it is designed to revolutionize all existing telephone methods and to bring about the abolition of the telephone girl.

For with the new system it becomes possible for any one telephone subscriber to become automatically connected with any other without the interference of any third person.

When it is desired to make a call on the Lorimer telephone, the number required to be called up is adjusted on a small glass aperture with 4, 5 or 6 pointers.

You move the pointers until No. 5643 stands out before you in front of the aperture. The handle at the bottom of the telephone instrument is then turned and this immediately sets in motion a dial, or electrical clockwork arrangement above the handle.

Work of Selection.

"This dial, or 'selector,' as it is called, begins to revolve, and 'selects' the number you have ticked out on the aperture above. As soon as the dial stops moving you lift off the receiver, apply it to your ear, and press a button to call the person wanted, when you immediately hear through the receiver the bell ringing in the called-up subscriber's room. If your correspondent is in, you talk to him at once.

The whole operation of getting into communication is completed in less than two seconds, and in several trials I made with the instrument I got into connection with other numbers in under eight seconds.

The mechanical and electrical operation of the dial, or selector, is so simple and so easy to explain on the handle, it is not very easy to explain on the handle.

BREAKERS AHEAD.

Some Coffee Users Hit the Rocks Hard.

The experience of a hard-working minister illustrates the grave dangers into which coffee drinking leads the unconscious victim.

Deranged nerves, clogged liver and disturbed heart action, are merely attributed by the sufferers to the right cause, and the aid of powerful and dangerous drugs is sought to give the relief. Opium, in its various forms, is the commonly used sedative, and with the result, too frequently, that as the use of the coffee is continued, the ailment grows worse, and larger and larger doses of the drug are demanded.

Then comes a day when the victim realizes with horror that he has become the slave of a terrible habit, the most difficult to overcome of any known to medical practice. Thousands go to their graves every year because of drug addiction, and the proportion of those who recover is very small indeed, for to break the chain that binds the sufferer a strength of will power is required of which the drug has already robbed him.

Very few, however, ever deliberately make choice of indulgence in hypnotic drugs. In the majority of cases the use is begun merely as a temporary expedient, and with no thought of its continuance, but with each dose the power to resist the appetite it creates grows less, and those who do not understand the dangers of coffee indulgence are, because of that very ignorance, the more easily led to the verge of moral as well as physical shipwreck.

The clergyman referred to says that he had been a coffee drinker for 20 years, and that at times went on he became a semi-invalid. "It made me so nervous and disturbed that I had to resort to hypnotic drugs to induce sleep or to enable me to make the necessary preparations for the pulpit."

A clergyman is expected to preach good sermons, and when he finds his intellectual faculties have grown so sluggish that he cannot properly prepare himself, it may be readily seen that the temptation to use a stimulating drug to overcome this inertia and quicken his powers might prove fairly irresistible.

The time came to him when he realized his dangerous condition. It must be serious for a religious teacher to drift into such a state; he states that about that time he went through the Postum factories at Battle Creek and saw how Postum Coffee is made and when he went home he determined to make the struggle for freedom.

He found it easy to rid himself of the coffee habit at once for Postum gave him the hot delicious beverage he wanted for breakfast and no drug, but rather the natural strength elements. Thereupon his natural sleep returned, the pains in head disappeared and the old lethargy left and he says the growth in his "vigor and strength has been most remarkable." A true and happy return to natural conditions and perfect health. It's worth while. Name given by Postum Co., Battle Creek, Mich.

There's a reason. Read the little book, "The Road to Wellville," in packages.

paper and without a practical demonstration.

The energy or electric power which you transmit to the exchange by turning the handle of your instrument and setting the dial or "selector" in motion, instantaneously operates a decimal indicator in the machinery at the exchange.

This indicator begins at once to identify the number of the subscriber who is making the call. The electric impulses go through the cord circuit, to find out or identify the subscriber who is being called up.

While the machinery at the exchange, I could see and hear the electrical movement going through the electrical brushes, until I found the number of the subscriber who was called.

When a call comes to the decimal indicator it is at once passed on to an automatic switch, of which there are a number, each of these switches being the mechanical equivalent of a telephone girl. These switches come into use one after the other in due order, the indicator sending the messages along to each switch in succession.

The indicator does not wait for the completion of the call, but, having passed it on, almost simultaneously it proceeds to take up the next signal.

In the exceptional event of more calls coming into the exchange than there are switches idle, the calls are stored up and distributed to the first switches unoccupied, no delay greater than a few seconds being possible, and no call being lost or neglected.

As a call is made, it will allow no other call to intrude upon the line. Yet it will store the delayed call until the required line is out of use.

An electrical group or unit of machinery is sufficient for 100 subscribers, and another group or unit of machinery is added for every additional 100 subscribers. Each unit is automatically linked up to the others.

For an exchange of 5,000 subscribers, 50 units would be required, and I am told that the greater the number of units the less is the proportionate cost. The cost per unit is about \$150.

A single mechanic or electrician is sufficient to look after the lines of 5,000 subscribers, which, under the existing system, requires the help of 30 girls present at one time, and, therefore, 60 girls, if we had the Lorimer.

Mr. Lorimer, curiously enough, hails from Brantford, where Alexander Graham Bell invented the first telephone. He has spent thirteen years in perfecting his invention.

LORD ROBERTS ON INDIA AND EAST

Effect of the Alliance With
Japan on the Hindoo.

MAY THINK BRITAIN TOO WEAK

Plea for System of Universal Training
for Military Duty—Not
Militarism or Jingoism.

London, Dec. 5. — Lord Roberts, in a recent Imperial address to the Oxford Union Society, said of India and the Japanese alliance: "It would be a fatal blow to our prestige in India if the natives of that country were ever allowed to believe that England needed the help of Japan, and had made an alliance with her from a hope that she would assist in the defence of our eastern possessions. The problem, then, before them was how these possessions were to be defended, and what force they would require to successfully oppose Russia in the event of her moving across the Afghan frontier. In case of a war with Russia it was imperative we should have a disposal of a force certainly not inferior to that which could be brought against us. Under the existing organization of our home and Indian armies we could not calculate on being able to mobilize more than 300,000 men after providing for the internal security of India. There then remained 400,000 to be provided, and how could enough men be forthcoming to replace the casualties which were inherent to war?"

"It is impossible for England to keep up a regular army of the strength maintained by any of the principal European powers. Conscription is not a system that could be made applicable to our army."

"There is but one way by which the difficulty could be met and a remedy found for our unpreparedness for war on a large scale, and that was by the adoption of a system of universal training. It should begin with the boys at school and be carried on for several consecutive months after they had reached an age when they would be capable of taking their share in the defence of the empire."

"Six years ago we were rudely awakened to a sense of our great responsibilities. It was suddenly realized that a portion of our empire was in danger, and that unless volunteers came forward in considerable numbers our necessarily small army could not possibly carry the war to a successful conclusion. A number did come forward, both from Great Britain and the end of England was the day. But the end was far too long in coming, and the expenditure was enormous, infinitely greater than it would have been had the country been properly prepared. Many of those who came forward had never received any military instruction at all, and they did not even know how to handle a rifle."

"There is no 'militarism' and no 'Jingoism' in a man's being prepared to defend his country. It is painful to notice how little is done to instill the sense of this land with the true feeling of patriotism, and to hear Englishmen talk as a Japanese writer had remarked, so much of their rights and so very little of their duties. He earnestly hoped they would make use of such opportunities as might be given them to foster a true spirit of patriotism."

He believed the great qualities of their race, the courage, the self-reliance, the risk, in the selfish rush and stir of modern life, of losing them unless they had the courage to fulfill the responsibilities that had been thrust on them as members of a great empire."

Oil in Alberta.

Vancouver, Dec. 5. — It is reported that the Western Oil and Coal Company have struck another big well at Waterton Lake, Southern Alberta, a record of 100 ft. Managing Director J. B. Ferguson left in haste for Alberta.

It is said that the matter is being kept quiet to enable the company to take more claims in the vicinity.

The discovery of a large body of coal and striking oil on the same property had caused a sharp advance in stock, held largely in London.

The Alsatian city of Mulhausen not only provides free baths for its school children, but medical inspection and dental treatment.

W. B. Lawson asserts that he is showing the largest stock of club bags, suitcases, and trunks, ever shown in London—probably as large as all other stocks, in the lines combined. Store: 195 Dundas street.

TAPE OPERATES THE TYPEWRITER

A Marvellous New System
of Telegraphing.

TWO DISPATCHES PER MINUTE

Machines a Thousand Miles Apart
Transmit Messages Without
Aid of Operator.

New York, Dec. 5.—Two typewriting machines in New York are operating, with incredible speed, by invisible hands.

In fact, the hand and the brain that is moving the mechanism of each of these typewriters, which, at this hour are writing words and sentences are a thousand miles away.

As one of the machines strikes A, at that instant it obeys an impulse in Chicago that it writes this letter of the alphabet in New York.

And the hand and the brain in Chicago, which operates this typewriter in New York, is as devoted of human life as the lifeless iron of the typewriter, which they inspire to utter human thoughts.

Yet, after all, it is only the latest evolution in the invention of the telegraph, itself the greater, though the older, miracle.

Two cities are now connected with New York by wires that for nine hours a day carry messages, directly into typewriters, connected with an electric light current, to operate their own mechanism. They are Buffalo and Chicago.

Before each of these typewriters, resting on a table in the great operating room at the Western Union Telegraph building in Broadway, is seated a girl, whose only duty is to feed the typewriter with the paper telegraph blanks, to watch them as the wonderful automaton—this inspired typewriter—covers their surface with printed words, and to remove them when they are completed, ready for delivery to the person to whom they are addressed.

From hour to hour as the machine rattles along about its work, she does not touch it.

This wonderful machine is the invention of Dr. J. C. Barclay, assistant general manager of the Western Union Telegraph Company. That it is destined to revolutionize the operation of the wire telegraph, no one can doubt—it has done it already.

And wonderful as is the adaptation of the typewriter in place of the little brass Morse sounder, still more wonderful is the speed of the machine.

No human hands for the fraction of a minute could operate a typewriter so fast. It will receive, operated by the automaton in Chicago, 30,000 words in nine hours.

The messages reach it from the city on Lake Michigan in practically an unbroken succession. The girl draws them from the machine at the rate of two addressed, signed and completed messages a minute.

A few feet away at the same table a girl is watching a paper tape, half an inch in width, punctuated along its length with a triple line of round holes, glide swiftly between two small wheels on the side of a brass box, three inches wide, four inches high and eight inches long. From within the plain brass box comes no sound of the marvelous work it is doing.

That little box of metal and that swift moving tape which never ceases to flow into the basket below the table, soon fascinates the beholder even more than the mysteriously inspired and operated typewriter.

Here is indeed the refinement of magic. This little box, that appears like a solid block of brass, is the hand and the brain that is operating the typewriter in Chicago. It is a duplicate of the hand and brain within another little brass box, that in Chicago is writing the messages on the typewriter here in New York.

The young girl keeps the machine constantly supplied with the three or five lengths of tape, so that they run continuously, hour after hour, an unbroken line of the punctured strips through the fingers of the weirdly precocious intelligence whose electrically charged brain is brass.

Those punctured holes in the slender tape present letters printed on the magic typewriter in Chicago.

Of course, human intelligence comes in somewhere along the line—it did not act in its relation with the typewriter and the telegraph system when Dr. Barclay completed his invention of the machine and his workmen built it.

The tape is punctured by a machine assisted by human hands. It has a keyboard and works swiftly.

From the original message of the sender the person operating this machine transmits its words onto the tape into the cabalistic characters represented by the holes in the tape, this being the only writing the little brass intelligence on the table can read and convey to its associate in Chicago.

This perforating machine in the hands of a swift operator can do all its work in placing a ten-word message on the tape in 20 seconds.

MUSIC AND DRAMA

There are five big settings in "A Runaway Boy." The first act shows an elaborate drawing-room set, the second act the scene changes to the country and the interior of a big barn, with its hay-lofts and box-stalls. In the third act a big circus tent with all the attendant paraphernalia of the sideshows and wagons is presented, and the last act brings the auditor to a fairylike winter scene in front of a country chapel. "A Runaway Boy" is to come to the Grand on Friday and Saturday next at popular prices. There will be a bargain matinee on Saturday.

Dr. Wood's Norway Pine Syrup

This wonderful cough and cold medicine contains all those very pine principles which make the pine woods so valuable in the treatment of lung affections. Combined with this are Wild Cherry Bark and the soothing, healing and expectorant properties of other powerful herbs and barks.

For Coughs, Colds, Bronchitis, Pain in the Chest, Asthma, Whooping Cough, Hoarseness or any affection of the Throat or Lungs. You will find a sure cure in Dr. Wood's Norway Pine Syrup.

Mrs. C. N. Looner, Berwick, N.S., writes: "I have used Dr. Wood's Norway Pine Syrup for coughs and colds, and have always found it to give instant relief. I also recommended it to one of my neighbors and she was more than pleased with the results."

Dr. Wood's Norway Pine Syrup 25 cts. per bottle at all dealers. Put up in yellow wrapper, and three pine trees the trade mark. Refuse substitutes. There is only one Norway Pine Syrup and that one is Dr. Wood's.

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HOW TO TAKE THEM

FOR
CONSTIPATION
BILIOUSNESS
INDIGESTION
DYSPEPSIA
TORDID LIVER

IMPURE BLOOD
RHEUMATISM
HEADACHES
KIDNEY TROUBLE
IRRITATED HEART
NEURALGIA
NERVOUSNESS
BAD COMPLEXION

Begin treatment by taking one "Fruit-a-tives" tablet three times a day and two at bedtime—for 3 or 4 days.

Take the tablets twenty minutes before meals, and always drink half a tumblerful of cold water (not iced) with each tablet.

Then take two tablets every night for a week—and then one every night for a month.

Be carefully about the diet—eat regularly—avoid veal, pork, dark meat fowls, and never drink milk with meals.

Bathe frequently—dress warmly—exercise sensibly—take "Fruit-a-tives" faithfully—and see how much better you are at the end of the month.

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SMALLMAN & INGRAM

THE WEATHER TODAY

Fair and Milder.

THE SATISFACTORY STORE.

Ribbon Hints

Shop early in the morning, if possible—more leisurely selection then. Although we have added more counter space and increased our staff of salesladies, the Christmas business is crowding this popular section—especially in the afternoons.

Our clerks will be pleased to offer Christmas hints for making many kinds of fancy work. Ask for suggestions. You're welcome to all the ideas we have.

There's a new collar and cuff set described in the right hand portion of this ad. See it.

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More New Ribbons

Many beautiful ribbons have arrived within the last few days, to add an additional charm of newness and freshness to our superb display.

QUAINT PAISLEYS—revivals of patterns that date back years ago—with colorings and designs so softly rich that they could be compared to cathedral windows bathed in sunlight. They are four inches wide and cost, per yard.....45c

A LOVELY DRESDEN has a garden of La France roses and cornflowers and white brocaded marguerites abloom on a white ground. Six inches wide, per yard.....65c

Many Ribbons have the FLOWERS EFFECTIVELY BLURRED. We noticed some beauties with "lovers' bow knots" securing bouquets of roses and other odd flowers (very like clematis and carnations), that appeared to be clouded with light, misty ground colors. About six inches wide. Per yd., 65c

One of our clerks has evolved a NEW COLLAR and CUFF SET. Narrow scalloped Dresden ribbons, striped, and overspread with miniature roses, and narrow white ribbons are the means employed. One yard of the Dresden is required, at 14c

One yard of the white is required, at.....6c

Ribbon required for a set costs.....20c

Come and let us show you how to make them.

Rough-and-Tumble Blanket Cloths

These goods are excellent for tobogganing suits. Stand the rough and tumble usage attendant on such strenuous sport in a surprising manner—practically unbeatable for wearing qualities.

Make very comfortable lounging robes too. 54 inches wide.

Royal and gray, per yard.....\$1.00

Navy, cardinal, navy and cardinal plaid, per yard.....\$1.10

Wool Eiderdowns

Tis said "they make very cozy dressing sacsques and lounging robes."

White, sky and cardinal. 54 inches wide.....75c

Some with fancy zig-zag stripes in colors of sky blue and brown, red and black, brown and white and 27 inches wide, cost.....45c

Others are striped plainly.

Castor and white, green and white, sky blue and white, gray and white. 54 inches wide. Per yard.....95c

Quilted Linings

Great variety of shades. Used for lining evening cloaks, scarfs, etc.

Quilted Silks and Satins.....\$1.00

Quilted Sateens.....75c

Mantle Section, Second Floor

Every place you go you hear the same question asked.