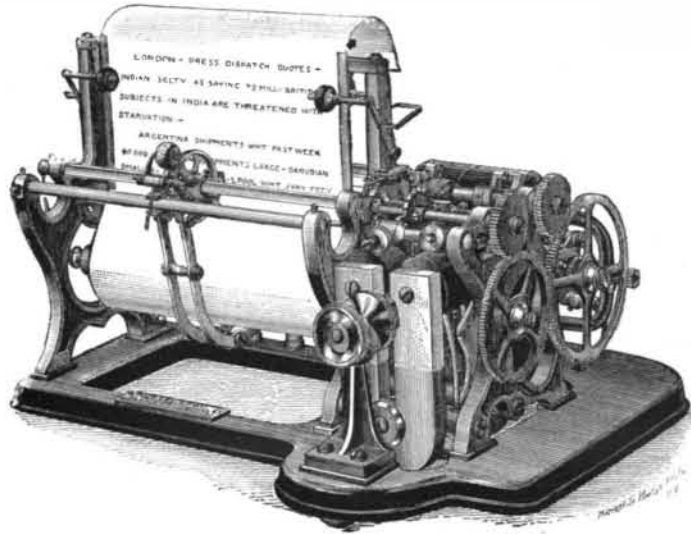


**A NEW PRINTING TELEGRAPH INSTRUMENT.**

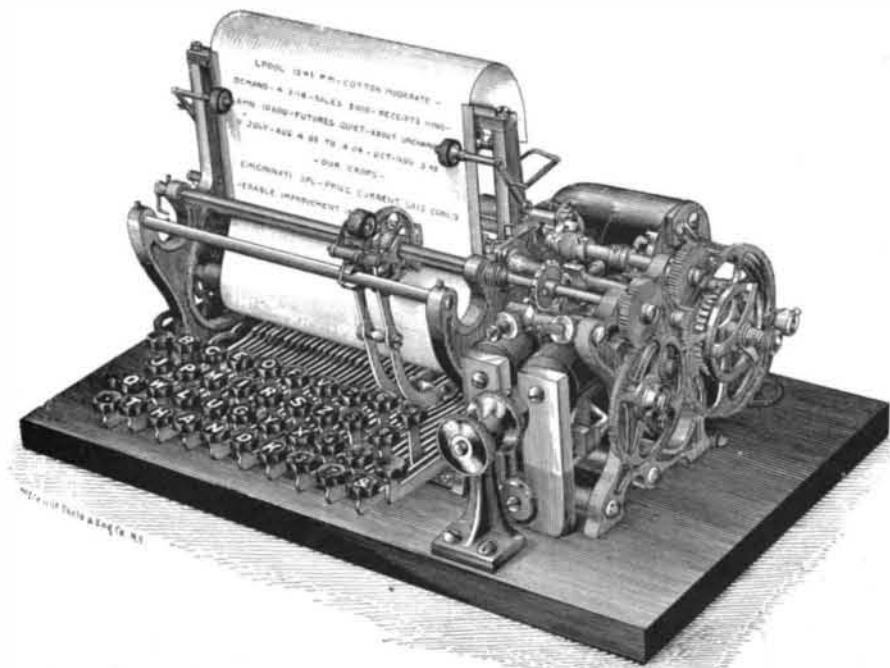
A printing telegraph instrument which is just being introduced, and which is as simple to operate as the ordinary typewriter, is shown in the accompanying illustrations, one of which represents a combined transmitter and receiver, and the other the receiver alone. It is of the class known as page printers, and prints on a sheet or roll of paper six inches wide, after the manner of a typewriter, a type of instrument which has attained considerable popularity during the past two years, but whose use has been restricted by its slow speed and the somewhat complicated details connected with its operation. By the new instrument herewith illustrated 2,200 words an hour are readily transmitted, as against only 900 or 1,000 words an hour by the old one, a perfect record being kept of the message sent in



RECEIVER-NEW PRINTING TELEGRAPH.

ordinary figures and alphabetical characters, and no attention whatever being necessary at the receiver. Its simplicity and reliability especially commend it for use on railroads and on private lines, no expert operator being required, as well as for all purposes where the ordinary tickers are employed. The instrument is covered by numerous patents, and is being placed before the public by the Printing Telegraph News Company, of New York. More than thirty of the new instruments have recently been put into daily use in Chicago, and 200 more are almost completed ready for shipment for the same city, to be placed in immediate service. The instruments and switchboards are all made in the shops of the company in New York City.

The transmitter, with the generator of electricity, may be regarded as forming one part of the system, the receiver, with the line wire, forming another part, in the transmission of messages to a distance, but these two parts are united in the combined instrument. A small electric motor takes the place of the weights and springs formerly used, and the electric power necessary may be obtained by simply attaching it to an ordinary direct current incandescent lamp socket, the current being controlled by suitable resistance, thus doing away with the care and maintenance of batteries. The transmitter sends out impulses of current—each in reverse direction to the next preceding or succeeding one—and



TRANSMITTER AND RECEIVER-NEW PRINTING TELEGRAPH.

controls the number sent out. It has a pin cylinder, rotated, when released, by the motor, and a keyboard with 39 keys, the upper left hand one being a unison key to release the pin cylinder and allow it to revolve indefinitely. A lower left hand space key stops the pin cylinder at a blank point with which the printing mechanism of the receiver is brought into unison as a

starting point, or zero, the other 37 keys including letters of the alphabet, figures, and a key for returning for new line. The space key is usually down when the current is on, to lock the pin cylinder from revolving. If any other key is pressed down, its lever arm, coming up under the pin cylinder, pushes back a horizontal bar latch and releases a lever then up and is itself in turn caught by the same latch and held until another key is pressed down. As soon as one lever is released and falls, the pin cylinder begins to revolve and continues until another pin on it comes against the end of the ascending lever. The revolving pin cylinder, by determining the number of impulses sent out, controls the rotation of the type wheel. The cylinder has geared to it a revolving commutator which reverses the current on the line. Each character key pressed down corresponds to a different number of impulses, and any motion in the pin cylinder of the transmitter is exactly duplicated by the type wheel shaft of the receiver.

The receiver has a type wheel with attached rotating power, an armature on the left, moved back and forth by magnets, releasing the type wheel shaft and allowing it to revolve step by step. The number of steps is determined by the number of impulses of current sent out by the transmitter. The paper is stationary, and the type wheel carriage moves horizontally from left to right, being checked at each step, that a small hammer may strike the paper against the character opposite it on the type wheel. When the carriage has been moved to the extreme right the operator depresses a key, when the carriage is drawn back and the paper is fed upward a short distance for a new line of printed matter. The instruments may be set up and primarily adjusted by any intelligent person, when they may afterward be operated by any typewriter, and without difficulty kept in operating adjustment.

**Is Baldness Contagious?**

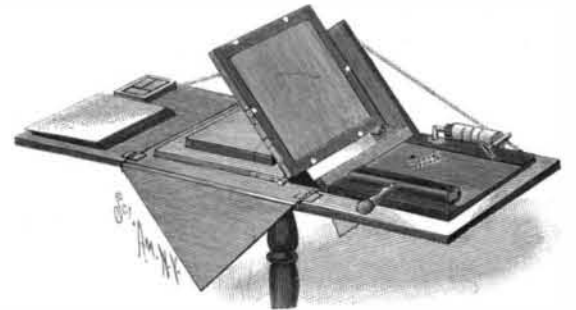
Dr. Sabouraud, in the *Annales de Dermatologie*, firmly believes that the disease is contagious, and that barbers' instruments are the most common carriers of the contagion; but as customers come and go from one barber to another, it is difficult to trace each case to its source. Starting with the theory of the microbial origin of the disease, Sabouraud has worked out a strong chain of evidence in its support. He tells us that the typical hair of Alopecia areata is found at the edge of an advancing patch, and is a stump of long hair that has remained in the scalp. It is club shaped, or like an interrogation point. Its diameter becomes less as we go toward the root, and its color is lost. These hairs are always a sign of an advancing patch, and are not found in old patches. The medullary (or pith) canal of these hairs is normal above, altered in the middle, and completely wanting at the root. The root is not bulbous and hollowed for the papilla, but in the form of a turnip. . . . Utricules that are full and closed are found among the sound hairs. They are filled with joined strata of epidermic cells, and contain in their centers, like a larva in a cocoon, compact clusters of microbes, a pure culture of the smallest bacillus known. . . . As it grows old it may be one quarter millimeter (0.01 inch) wide and one-half to one millimeter long, and comma shaped, or bent. The young bacilli are a little swollen in the center, and their ends are blunt. . . . Each utricule contains millions of them. . . . This bacillus is regarded as the probable cause of the disease.

**A Municipality Engages in Journalism.**

Dresden owns a singular piece of property, says the *Home Journal*. It is a morning newspaper, the *Dresdener Anzeiger*. This daily paper, upon the death of its last proprietor, was willed to the city upon condition that all profits arising therefrom should be spent upon the public parks. This year a large playground of nearly eight acres was purchased from Prince George, the king's brother and heir apparent, and it will be ready for use next spring. The paper continues to hold the respect of all citizens, for the trust has been carried out in the broadest spirit, and the paper has never been employed to foster any school of opinions.

**THE "NEOSTYLE."**

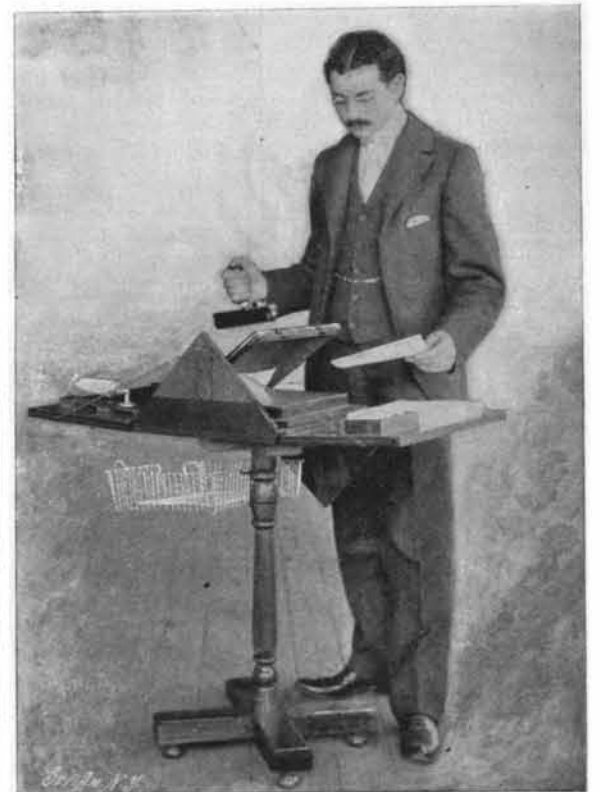
The accompanying illustrations represent a simple, inexpensive, and convenient apparatus for duplicating letters, circulars, notices, reports, etc., written originally with the Neostyle pen, or with the typewriter on a sheet of patented stencil paper. It is manufactured by the Neostyle Company, Nos. 96-102 Church Street, New York. The typewriter stencil paper is a very



THE "NEOSTYLE" PRINTING APPARATUS.

porous Japanese paper rendered impervious to ink by coating it with wax. The impact of the type in the typewriter forces the wax out of the porous paper where the type strike, thus making a stencil of the sheet. A thin tissue protecting sheet is used to prevent the wax filling up the types, and a silk gauze sheet is used at the back to receive the wax forced from the sheet in making the stencil. This sheet differs from other stencil sheets inasmuch as no folding is necessary when putting it into the typewriter, and consequently no varnish is required to cover cracks caused by folding. The stencil sheet is cut the same size as an ordinary sheet of typewriter paper.

To obtain any number of copies from the stencil, a sheet of patent porous paper, porous in the center and having a waxed border, is stretched in a printing frame. The stencil is then laid against this porous



MAKING COPIES ON THE "NEOSTYLE" PRINTING APPARATUS.

sheet, to which it adheres by capillary attraction, the sheet to be printed upon is placed upon a flat bed beneath the frame, and the latter is pressed down upon the paper, when the copy is made by passing an inking roller over the upper surface of the porous paper held in the frame, the ink penetrating where the stencil is made. The printing frame is spring hinged, and the suction as it rises causes the printed copy to partially lift and fall obliquely through a slot at the back of the frame into a basket, as shown in the larger view. A kind of soft printing ink is used, which readily penetrates into the paper and almost instantly dries. The stencil is removed by simply pulling it away from the porous sheet, and the same sheet of porous paper may be used for a number of different stencils. The work is a close imitation of actual typewriting, and copies may be taken at the rate of twenty a minute. Copies of electrotypes may be made by impressing them upon the stencil sheet, and music is duplicated by making the notes upon the stencil sheets with suitable punches, paper specially ruled therefor being provided.

The ink supply is furnished from a collapsible tube mounted at one edge of the ink table, the nozzle of the tube being connected to a tube running under the ink slate to an opening formed in the surface, as shown by the dotted lines in the small view. Attached to the rear end of the collapsible tube is a key, by turning which the ink is forced out upon the slate as desired, the key