

THE CHINESE PRESS IN AMERICA.

BY CHARLES F. HOLDER.

In roaming through the famous Chinatown of San Francisco, its lanes and alleys, the stroller will perhaps observe over a narrow door a mystical sign, and beneath it the words Chung-Sai-Yat-Po, the daily newspaper; and if curious he may ascend the narrow stair and reach the editorial and other rooms of one of the several Chinese papers published in this Chinese-American city, Little Canton, as it is sometimes called. This paper was first started as a weekly, but was finally changed to a daily, and is now an influential organ of what might be termed the Americanized Chinese, or the New Chinaman, as the editor is a Chinese minister of the Presbyterian Church, a man of high cultivation from the American standpoint. He is the Rev. Ng Poon Chew, and one of his literary advisers and aids is John Fryer, LL.D., who fills the chair of Chinese Literature at the University of California; but the typesetters, the clerks, in fact all the employes, are Chinamen, some of whom are graduates of American schools. In the business office and editorial room there is little to attract the attention. American desks and chairs and telephone are the appliances of the workers; but when the visitor enters the composing room, a high, cheerless brick-wall-enclosed room, he is confronted with the fact that here as well as elsewhere in China things are upside down. In a word, the typesetter is quite as important a factor as the editor; at least such is the impression gained by the observer who faces the extraordinary cases of the Chinese compositor.

The American typesetter is obliged to be familiar with twenty-six letters, ten figures and a few signs and symbols, as periods, dollar marks, etc., but the Chinese compositor must be familiar with eleven thousand characters of this archaic language, about which Prof. R. K. Douglas says: "Every word is a root, every root is a word. It is without inflexion or even agglutination; its substantives are indeclinable, and its verbs are not to be conjugated; it is destitute of an alphabet, and finds its expression on paper in thousands of distinct symbols."

It is needless to go into a description of this marvelous language to explain the difficulties of the Chinese compositor; but one illustration is sufficient. Certain sounds often stand for several hundred words, the difference, often vital to an intelligent presentation of an idea, depending on certain diacritical marks accompanying each word. There are thousands of these symbols which are engraved, each one representing a type, but a well-regulated newspaper will require but eleven thousand characters; if others are needed they are made in the office. A font of type in the Chinese language requires eleven thousand spaces, and in the large and spacious racks here shown each word instead of each letter, as in English, has a place for itself. There is also a peculiar grouping or classification of symbols into groups to further facilitate the mental labors of the typesetters. Thus in the immediate vicinity of the symbol for fish would be found the symbols for scales, net, fins, tail, gills. This simplifies the labor, which in any event must be so strenuous that it is evident that the compositor's end of the Chinese newspaper should, if perfect justice ruled, be the highest paid.

The compositor is a staid and dignified individual, and as he slowly walks from symbol to symbol, picking up those which he requires with provoking calmness, the American compositor might well wonder when the work would be completed; and to set up the limited type required for a small four-page daily paper the constant labors of eight or nine skilled Chinamen are required for twelve or thirteen hours, the entire work in every department being the antipodes of the rush and whirl and marvelous celerity of the modern American publication.

When the paper is set up it is printed on an American press, but the type, the symbols, are all made in China.

There are three other newspapers published in San Francisco besides the one described—the Chinese World, the Oriental News and the Commercial News. Nearly all have some special object in view. Thus the World is a reform paper, virtually the organ of the Empire Reform Association, a club or society which is very influential in Chinese circles in San Francisco and said to include a fourth of the entire population. The World opposed the Boxers, is pro-American in its ideas; its editor is Tong Chong, a friend of the late missionary, Mr. Masters; a man of high culture and many attainments, who has, by the aid of the society, of which he is secretary, attempted

trically through long distances, just as we hear electrically by means of the telephone. The new invention is of unusual interest, since it employs but a single circuit to transmit the images. Although it is difficult to obtain full particulars of the contrivance, it is possible to give at least an outline of the principles which underlie its construction and operation.

Two small synchronous A. C. motors, each about the size of an egg, the one mounted at the transmitting station, and the other at the receiving station, are driven by a current derived from the same generator, so that they rotate at exactly the same speed. The speed is about 30,000 revolutions per minute, or 500 per second. Such a velocity of rotation will no longer arouse much astonishment after the high speeds attained by the De Laval turbine.

Each of the armatures at about its middle carries a small lens or objective. Although it turns with the armature, each lens is free to oscillate through five degrees from the axis of rotation. This movement of oscillation is effected about an axis normal to the axis of rotation, and is controlled simply by a double-threaded screw. A complete oscillation takes place for every 50 revolutions of the motor. Hence there are ten oscillations per second. At the transmitting station the lens is fitted with a screen or diaphragm so that only a small portion of its surface is exposed at a time. The image which is projected by the lens remains on a point of the axis of rotation. A selenium composition, the electric conductivity of which varies according to the intensity of the light to which it is exposed, is placed on the axis of rotation. The lens, rocking while its axis of oscillation turns about the axis of rotation normal to the former, may be said to

"see" in space a spiral, the center of which is the prolonged axis of the electric motor, the spiral extending to an angle of five degrees entirely around this axis. The spiral is completed forty times per second. The objective, therefore, traverses forty times in each second the surface of the body to which it is exposed, provided that this body is not situated beyond an angle of ten degrees relatively to the transmitting body considered as the vertex of the angle. All the luminous rays successively emitted by all the points of the surface of the body the image of which is to be transmitted are thrown on the transmitting body. The current passing through the circuit in which this transmitting body is included, will vary at each instant with the luminous intensity of points to which the lens is successively exposed.

At the receiving station the circuit includes a conducting body, the luminous intensity of which varies instantly with the intensity of the current. The luminosity will, therefore, fluctuate with the quantity of light received by the transmitting body. This receiving body is placed in the principal focus of the lens, which turns and oscillates at the receiving station. Through the medium of this lens the luminous image of the receiving body is projected in the form of a spiral on a white screen placed before the lens. This luminous spiral which is traced forty times per second, through the same fluctuations as the transmitted spiral, reproduces the image of the body so rapidly that to the eye the picture is continuous.

In order to carry out experiments with the apparatus, absolute darkness is essential. The inventor, however, hopes to devise a means whereby it will be possible to project the image directly on the retina of the eye. He intends to place the receiving apparatus directly in contact with the eye.

A New Cure for Scarlet Fever.

At the Carlsbad convention a new cure for scarlet fever was announced. The honor for this discovery must be credited to Dr. Moser, the assistant physician at St. Ann's Hospital for Children, at Vienna. The cure consists in the utilization of a serum. During the last two years it was said that this serum has been tried on 400 patients, with a decrease of mortality to nine per cent.

Electrical Vision.

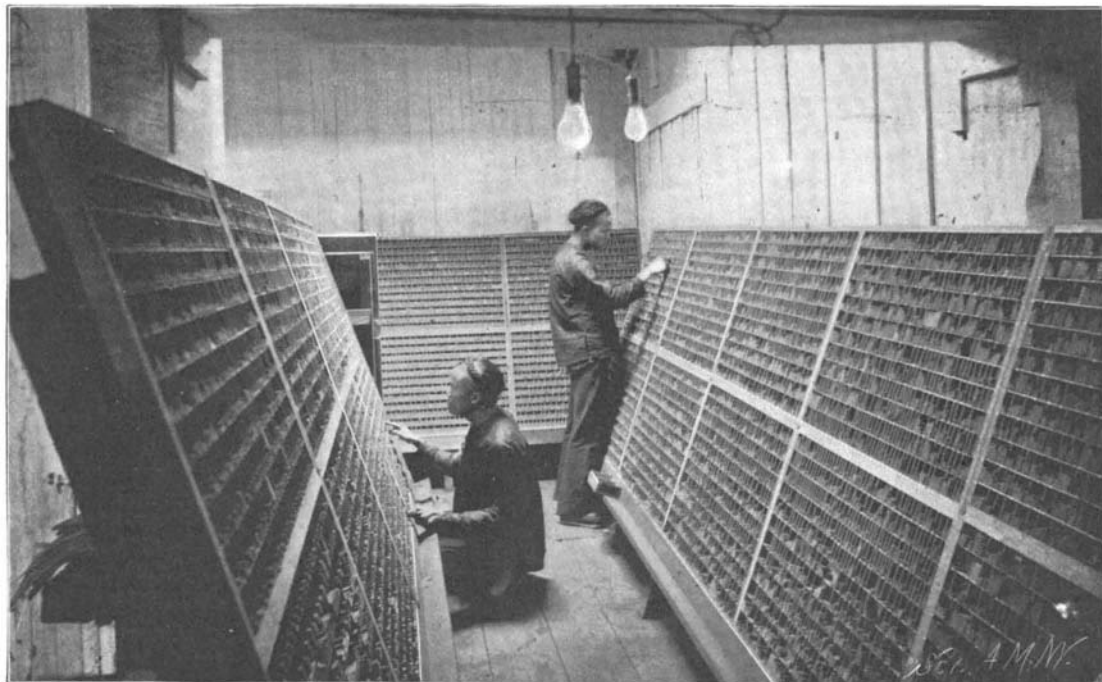
BY EMILE GUARINI.

A Belgian engineer whose name is not known has endeavored to solve a problem which has baffled many inventors. The problem in question is that of devising some means whereby it is possible to see elec-



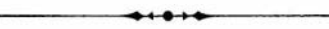
A SAN FRANCISCO CHINESE NEWSPAPER.

to reform the entire Chinese nation. He hopes to accomplish this by educating the people up to a point where they will overthrow the Manchu power seated in the Empress, and with the Emperor upon the throne literally open China to reforms of all kinds. Tong Chong has found that even in America the path of the reformer is not over a bed of roses, as having aroused the enmity of the Manchu party, or that of the conservatives of the Chinese, the ultra-intolerants of reform, he has been confronted with the mailed hand of China more than once; and finally unable to reach him directly, his relatives in China were thrown into prison, charged with his crime—a lever by which the Empress hoped to change the policy of the Chinese-American journal which is virtually the organ of the muzzled Emperor of China. Native journalism in China is still in its infancy, so far as perfection of appliances is concerned, yet the Pekin Gazette is the



INTERIOR OF CHINESE COMPOSING ROOM, SHOWING ENORMOUS SIZE OF THE FONTS.

oldest newspaper known, having begun publication nearly one thousand years ago; so long in the past that the "original copy" has disappeared; but the many modern newspapers published in the great cities of China suggest that the beginning of a new era has dawned.



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