

CHINESE, OR INDIA, INK.

MANY articles are found in the extensive literature of China written by their learned men about the paper, ink and brushes that they use for writing, but unfortunately very little is said about the technology of their inks. It is quite otherwise in the recent book written by Chen-ki-souen, for he describes every stage of its preparation with great accuracy and in detail. According to the Celestial author, a kind of pigment ink was discovered 2697 to 2597 B. C. It was employed for writing on silk with a bamboo rod. Afterward an ink was prepared from a certain stone (*encre de pierre*), which is still known in China as *che-hei*. It was not until 260 or 220 B. C. that they began to make an ink from soot or lampblack. The soot was obtained by burning gum lac and pine wood. This ink was made at first in round balls, and very soon supplanted the stone ink. For a while the Province of Kiang-si appears to have had a monopoly of ink making. Under the dynasty of Tang, in 618 to 905 A. D., there was a special officer, called an inspector, who had charge of its manufacture. He had to furnish the Chinese court with a certain quantity of this ink annually. Some of the factories seem to have been "royal Chinese" factories." The Emperor Hian-Tsong (713 to 756 A. D.) founded two universities, to which he sent 336 balls of ink four times a year. The most celebrated ink factory in China is that of Li-ting-kouei, who lived in the latter part of the reign of Tang, and is said to have made an excellent article. He made his ink in the shape of a sword or staff, or in round cakes. The test of its authenticity consisted in breaking up the rod and putting the pieces in water; if it remained intact at the end of a month, it was genuine Li-ting-kouei. Since the death of this celebrated man there seems to have been no perceptible advance made in the manufacture of India ink.

In the manufacture of lampblack nearly everything is used that will burn. Besides pine wood we may mention petroleum, oils obtained from different plants, perfumed rice flour, bark of the pomegranate tree, rhinoceros horn, pearls, musk, etc. Nor does fraud seem to have been entirely wanting. According to Chinese authorities, the principal thing is the proper preparation of the lampblack; the best smells like musk, and the addition of musk not only serves to give poor goods the resemblance of fine ones, but really makes it worse. The binding agent plays the chief part next to the lampblack; ordinary glue and isinglass alone are now used. In old times glue made from the horns of the rhinoceros and of deer was employed. Good Chinese ink improves with age, and should not be used for a few years after it is made. It is not easy to keep it, as it must be protected from moisture. Some persons, in rubbing it up, make circular movements that soon ruin it. It is better to rub it in straight lines back and forth with the least possible pressure.

"NEVER mistake perspiration for inspiration," said an old minister in his charge to a young pastor just ordained.

RAM'S HORN CAVE.

IN a detached range of mountains about five miles east of White Sulphur Springs, Montana, there is a subterranean cavern of immense size, called "Ram's Horn Cave" by the fanciful and "Bandit's Retreat" by the melo-dramatic. The convulsions of Nature have so filled the chambers with masses of rocks that they do not present the beautiful array of stalagmites and stalactites, carved walls and level floors, stairways and open passages, so usual to these earthy caverns; but the very roughness has a peculiar attraction, and gives one the fancy that he is walking amid the buried ruins of a city. Passing from the outer world beneath a huge arch one finds himself first in a chamber about 60 by 50 feet, with a ceiling 30 feet over his head. From this he follows a descending passage, inclined at a very steep angle, for a quarter of a mile. The passage varies in width from 50 to 100 feet, and in height from 20 to 50 feet, and is strewn with masses of broken rock, evidently detached from the ceiling and walls by internal convulsions of great force. These at places nearly choke the passage-way, and at one place the visitor passes beneath an arch made by the wedging of two immense blocks of stone that mutually support each other, and look as though they were but waiting for him to come beneath to fall upon and crush him. From where this passage forks the descent to the right is made a short distance with difficulty to where several smaller passages lead off in different directions—one to a chamber in which are found beautiful stalagmites and stalactites. The left fork offers several routes of travel, all of them difficult; one passes through a small crevice in the solid wall; another follows circuitously around jagged rocks and rugged masses of stone, and the third is a small meandering tunnel, very small and dividing into forks. In following the main passage from this point one must let himself down a precipice a distance of fifteen feet with ropes, when he enters a chamber undisturbed by the throes that have so disrupted the upper portion of the cavern, and full of many curious and interesting formations. This is the practical ending of the cave, though one tunnel, too small for a man to enter, leads towards the bowels of the earth, and many small passage-ways strike off in different directions, but all heading upwards and gradually "pinching out." The mountains of that region are full of these interesting rocky caverns.

If you would be happy, try to be cheerful, even when misfortune assails you. You will very soon find that there is a pleasant aspect to nearly all circumstances—to even the ordinary trials of life. When the hour of misfortune comes, whether it appears in the form of disease or pecuniary loss, face it manfully and make the best of it. Do not nurse your troubles to keep them warm, and avoid that useless and senseless habit of constantly referring to them in your conversation.

THE farmer should make experiments himself as well as note the result of those made by others.