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CHANGES IN THE PATENT OFFICE.

Mr. R. G. Dyrenforth, of New York, Assistant Commissioner of Patents, has resigned the office, and Mr. R. B. Vance, of North Carolina, has been appointed to the same position.

During the recent brief interval between the resignation of Mr. Commissioner Butterworth and the appointment of Mr. Montgomery, the present Commissioner of Patents, the duties of that office devolved upon Mr. Dyrenforth, and he at once set to work to try to bring about a reform in the bureau, with a view to putting an end to the long delays in the transaction of business—abuses which Mr. Butterworth was unable to cope with. Under Mr. Dyrenforth's rule, brief as it was, there was a notable increase in the activity of the office.

Mr. Vance, the new Assistant Commissioner, was lately a member of Congress and chairman of the Committee on Patents. During his Congressional service he made himself very familiar with the affairs of the Patent Office, and took an active part in the House of Representatives in upholding the interests of inventors, at a time when hostile legislation was advocated by others. Mr. Vance is a man of much ability, and his acceptance of the office of Assistant Commissioner will, we think, be highly advantageous to the bureau.

HERAT.

Whether the Russian advance upon the northwestern frontier of Afghanistan shall be stayed at the mountains or pass on to Herat the coming summer, remains to be seen. In either case that ancient city will continue to be the center of the most commanding political and military interest. Sooner or later it must be determined, by skillful diplomacy or much fighting, whether Russia or England shall hold that time-honored key to Central Asia. Meantime all readers of telegraphic news from that quarter are asking for information touching the present condition of the city and its surroundings, and the reasons for its apparent importance from commercial and military points of view.

The geographical situation of Herat, 34° 22' N. lat., 62° 9' E. long., with its elevation of about 2,500 feet above the sea, gives it a charming climate. The valley in which it lies is the granary of Afghanistan, and its surrounding gardens yield fruits corresponding with those of Southern Europe. Central New Mexico has about the same latitude and a similar climate, though less temperate and somewhat drier. The plain of Herat is well watered by canals from the Heri River, and is said to contain fully 400 square miles of arable land. The upper valley of the Heri is described as a beautiful rolling country furnishing the finest of pasture lands. Three or four miles south of Herat the river is crossed by a magnificent bridge of 23 arches.

The territory tributary to Herat extends east and west from near the sources of the Heri to the Persian frontier, about 300 miles; formerly it extended north and south 200 miles from the Merv boundary to the northern limit of Seistan. The Russian conquest of Merv has cost Herat all its territory on the plain north of the Parapomus Mountains, and has pushed the disputed boundary to within 40 miles of the city to the north, as the Russians claim, or about twice that distance according to the English and Afghan authorities.

The city is in the form of a quadrangle, nearly a mile on each side. On the western, southern, and eastern faces the lines of defense are almost straight, and are broken only by the great gates and their defenses. The northern line is broken by two gigantic earthworks, the old citadel and the new citadel, built of sun-dried bricks. The city wall rests on the summit of a huge embankment averaging 250 feet wide at the base and fifty feet high. The wall proper which crowns this vast earthwork is 25 feet high and 14 feet thick at the base. It is surrounded by a ditch 46 feet wide and 16 feet deep, and is supported by 150 semicircular towers.

The colossal character of these earthworks leads Sir Henry Rawlinson to infer that the city, as a stronghold, must date from prehistoric times—from that period of Central Asian history which preceded the rise of the Achæmenian power, and which in Greek romance is illustrated by the names of Bacchus, Hercules, and Semiramis. Its dominant position with reference to Central Asian and Indian affairs is proved by a military history unequalled by any other city—a record of more than fifty sieges, undertaken, as Vambery has pointed out, not so much for the sake of the rich soil which surrounds Herat, as on account of the desire for conquest with which it has inspired sometimes India, sometimes Central Asia.

The population of the city under these great vicissitudes of fortune has naturally varied greatly. In times of great prosperity and peace it has numbered a million or more; at other times it has dwindled to a few thousand; now, it is variously estimated from 25,000 to 50,000 or more. It is believed that the present city comprises only the citadel of the city that once covered the surrounding plain for many miles.

DO WE WORK TOO MUCH?

We have before us an interesting paper on "The Hygiene of the Nervous System," contributed to and reprinted from the *Alienist and Neurologist* by C. H. Hughes, M.D., of St. Louis. The belief expressed therein of a cholera visitation during the coming summer or autumn is supported by good authority, viz., the experience with former European epidemics, and the precautions suggested by the author are well advised and timely. He enumerates and describes the various physical and mental conditions which invite the infection in man and increase its virulence, among which he reckons engrossing and continuous application to business affairs. Dr. Hughes denounces a tendency he has discovered among Americans to "overwork."

He says: "The cause of much of the premature decrepitude and nerve degeneracy and breakdown of our day is in the many inventions man has devised whereby he robs himself of timely rest. The morning newspaper, often read through before breakfast; the telephone in his house to call him at any and all times aside from his repose; the electric light to keep his brain unduly stimulated through the retina; the railroad and the sleeping coach, which may keep him constantly on the rail (if he chooses to so travel) for continuous weeks without rest from the noisy and exhaustive cerebrospinal concussions of this mode of travel; hasty meals and telegrams, and business, and nightmare sleep, all commingled, wither and wreck lives innumerable, which, under wiser management, might end differently; and the needless noises of the city, the bells and steam whistles, howling hucksters, noisy street cars, yelling hoodlums, that make night hideous with soul-jarring sounds, hasten the premature endings of useful lives. And when, superadded to all this unphysiological strain, we have the assault of a pestilence that poisons, like cholera, how much exemption can such overwrought organisms expect? How much of resisting immunity can such overstrained and exhausted nerve force oppose to the invading foe?"

The question, How much resistance can an overstrained organism offer to the assault of the gruesome scourge? it is not for the lay mind, but for the medical faculty to consider. There is, however, good reason to believe that Doctor Hughes would find it impossible to prove that this "overwrought" condition is due to overwork. There are, of course, exceptional cases, but it is not with these we have to do, but with the broad assertion that we are an overworked people, and that "the cause of much of the premature decrepitude and nerve degeneracy and breakdown of our day" is begotten of overwork. Were we so bold as to express an opinion on the cause, we should say that it proceeded in great measure, if not in nearly every instance, from bad habits, from the immoderate use of liquor or other stimulants or irregular habits, or both, and in this assertion we could hope to be sustained by business and professional men of long experience, who have had the opportunity and inclination to study their business associates and employes.

Singularly enough, the Doctor, after informing us that undue excitement, anxiety, and overwork leave the system peculiarly exposed to and at the mercy of the infection, proceeds then to furnish us with evidence to disprove his own proposition. He says: "During the week of the great St. Louis fire in 1849, the ravages of cholera, which up to that event had reached a mortality of over two hundred a day out of a population of fifty thousand, almost entirely ceased, so stimulating and invigorating was the excitement of that week to the brains and nervous systems of the people, the psychical exaltation inseparable from the sudden necessity thrown upon so many business men for repairing the sudden damage and re-establishing their abruptly interrupted business."

If the Doctor is sure about this, it would seem as though active employment, both mental and physical, furnished the best protection against cholera, and that the condition of nervous excitement and overwork which he most deplores as inviting the dire malady in reality presents the most effective barrier against it.

Among the many beliefs or rather superstitions which the light of recent investigation and experience has served to dissipate, is that which attributed a continuance of good health to a saving of the vital forces by inaction. A man was supposed to have a certain amount of vitality with which, as with his bank account, he could be saving or prodigal. Goldsmith, who besides being a poet was a doctor of medicine, and attended lectures in England, France, and Germany, only reflected the general belief in the doctrine when he tells us that he had hopes by a life of ease,

"To husband out life's taper to the close,
And keep the flame from wasting by repose."

His contemporary, Dr. Johnson, too, believed that the seven years of unceasing labor that he gave to his dictionary would shorten his life. There is reason to believe, however, that a life of ease would have hastened rather than postponed the demise of the former, and that Johnson's physical ailments would long before have proved unsupportable without the unremitting toil of which he so bitterly complains.