Correspondence.

AN URGENT PATENT OFFICE REFORM.

An Open Letter to the Hon. William McKinley, President, Washington, D. C.

MY DEAR SIR: As the time draws near when you will submit your annual message to Congress, allow me to suggest a subject under the caption "An Urgent Patent Office Reform," which should form a part of that message and which needs dwelling upon by yourself.

'Tis true that the regular report of the Commissioner of Patents will, as usual, cover the requisite ground; but as Congress has heretofore seen fit to ignore the needs and requirements of a service which has grown to such immense proportions that in every department of the Patent Office the employés are overcrowded to an extent inimical to health and detrimental to the good of the service, it is time some strong hand should support the recommendations made from time to time by the Commissioner of Patents and from time to time as often disregarded and ignored by Congress.

Coming, as you do, from the great manufacturing State of Ohio, you cannot but appreciate the influence of our patent service upon the business interests of the country; and anything looking to the betterment of that service redounds to the welfare, not only of inventor and manufacturer, but also to that much championed individual, the American workingman.

It is obviously evident from past experience that Congress has very little idea about either the working of the patent service or the great niche it fills in its relation to the outside world, employing, as it does, nearly seven-eighths of the entire capital engaged in manufacturing interests in the United States, or upward of six thousand millions of dollars, all based on patents; and if we are to learn anything from the past, that lesson seems to be that the future holds out little of encouragement toward the development by Congress of this service, whose crying needs have been so lightly passed over heretofore, unless some forceful influence is brought to bear in its support.

As you are doubtless aware, the yearly receipts of the Patent Office are $300,000 over and above its expenses, and it already has to its credit the enormous sum of $5,000,000.

In a letter to this journal, dated October 9, and published in its issue of the 23d ult., the writer called attention to the inconsistency in the present working of the Patent Office, which compels inventors to wait four months or more from the date of filing their applications before they come up for examination; and to excuse this delay either on the ground that the office is overworked or the force of examiners insufficient to cope with the vast amount of business pouring into that office daily, has no force in the light of the immense resources available to place the service upon a footing beyond criticism.

This journal, in its issue of the 6th inst., has an answer to my letter of the 9th ult., by one "E. A. H.," of Washington, who covers the ground exhaustively.

He writes that the Commissioner of Patents has no power or authority over a single penny of the receipts of the Patent Office, but that it is Congress who doles out with a niggardly hand just enough of revenue to keep the office from falling into innocuous desuetude, going so far as "specifying how much must be spent for each branch of the service, and even enumerating the entire office force to a man, prescribing their duties and salaries, and specifying the various amounts to be expended for supplies and other expenditures," entirely setting aside the suggestions and recommendations of the Commissioner.

So thoroughly and minutely does our Congress look after this most important of our government institutions that, according to our Washington friend, "the office is full of so-called laborers at laborers' pay doing the work of stenographers and skilled clerks, of messengers at messengers' pay doing the work of assistant examiners, while were it not for such expedients as these the office could not keep its head above water even as well as it does at the present time."

Now, Mr. President, as a man of sound common business sense, I ask you, wherein lies the justice of such procedure on the part of Congress? What right has Congress to deny to the patent service of this country that which is justly its due?

The directors of a bank might with equal justice refuse to cash the check of a depositor, because he had already withdrawn part of his deposit, as for Congress to steadily refuse to appropriate the necessary funds for the proper and expeditious transaction of the Patent Office business when the funds are already on hand for the purpose.

Here is an army of inventors pouring their fees into the Patent Office, and in return, what do they get? An impaired service, long and needless delays, working untold injury not only to themselves, but to the manufacturing interests of the country as well.

To quote again from the Washington correspondent: "Why should $300,000 per annum be collected from our inventors over and above the actual expenses of running the Patent Office, and then the appropriations for annual expenses be so cut down by Congress as to materially impair the service?

"Why are not our inventors justly entitled to as thorough and complete a preliminary examination and as valid a patent when issued as money, skill, and experience can afford, and which they would long since have had if the oft-repeated recommendations of practically every Commissioner who has held office for the last twenty years had received proper attention from Congress?

"Why should so large a portion of the building erected by the money of inventors, for the transaction of their business, be occupied by other non-supporting bureaus to the detriment of the service? Why should their models be crowded out of the building where they most naturally belong? Why should not the bureau be provided with a laboratory and scientific and law library, each fully equipped and in every way suited to its pressing needs? Why should not salaries be increased to be commensurate with services rendered?"

Our Washington friend asks, "Wherein does the remedy lie?" and answers for himself his own query, by saying, "Evidently in the halls of Congress." As this solution presents to him such a gloomy aspect he says: "I think, judging from the past, there will be no relief, or at least relief that is at all adequate, until the inventors and manufacturers of the country, one and all, take a personal interest in the matter, and use their personal influence with their senators and representatives in Congress, to see to it that in this matter simple justice is done them."

Mr. President, the inventors and manufacturers of this country want a better service; in fact, they demand a better service, and they back up their demand with the coin of the realm, which they have already paid for an inadequate service.

You, Mr. President, were elected to office by the people, and the people, of whom the writer is one, ask you in the name of justice and fair play to so present this matter in your forthcoming message to Congress that the report of the Commissioner of Patents will, when presented, have the consideration given it that it so well deserves, and that the needs of the patent service, as therein expressed, may be promptly met by the requisite appropriations; for no one, not even our worthy Congress, knows so well the needs of the service as does the Commissioner of Patents.

Respectfully, WILLIAM E. HEATH.

Baltimore, Md., November 9, 1897.

Parasites of the Fly.

To the Editor of the SCIENTIFIC AMERICAN:

Having seen no article in any of the periodicals upon the subject of which I am about to speak, and being anxious to know about the existence, distribution and classification of such insects, I mail to you, in a separate mailing tube, some specimens of this peculiar parasite which seems to have eluded our notice until within a few days.

At time of sending there are two of these lobster-like parasites attached to the fly's legs, in just the position they were when the fly was caught, about two hours ago. If you can tell me whether these parasites can subsist upon anything else than flies, from whence they come, and whether or not they are an apparently recent contribution of nature, I shall be very glad to be enlightened upon the subject through the columns of your valuable paper. C. T. PAGE.

Reply by L. O. Howard, Entomologist, United States Department of Agriculture.—The house flies sent by Mr. C. T. Page, of Chappaqua, N. Y., carried two species of arthropods attached to them. The first, a minute, scorpion-like creature, with enlarged palpi that look like the claws of a lobster, is one of the so-called "false scorpions," known as Chelanops oblongus, Say. These little false scorpions live in dusty places among books, in the cracks of the floor, under the bark of trees, and so on, and feed upon minute, soft-bodied insects, such as book lice and thrips. They are not true parasites on the house fly, but simply cling to the flies in order to be carried about. The second species is a small red mite which is a true parasite of the house fly. It is known as Ottonia muscarum. These fly mites are frequently found attached to different parts of the house fly and suck its blood. It is not likely, however, that they ever exist in sufficient numbers to seriously reduce the numbers of the house fly, and, in fact, they do not kill it soon, so that it will reproduce and live out a large portion of its allotted term of life before succumbing to the attacks of the mites.

IN the German gold and silver assay office, heating and smelting tests with acetylene gas were made recently, and are said to have resulted most satisfactorily. In a short time temperatures up to 1,500° Cent. were produced. A quantity of nickel was molten ready for casting within thirty minutes, while formerly it took from eighty to eighty-five minutes to melt the same quantity. A Bunsen burner, specially constructed for acetylene gas, furnished excellent results.

Science Notes.

The formula employed by the Magdeburg Steam Boiler Association is: (calories) = [8,000 C + 29,000 (H — O ÷ 8) + 2,500 S — 600 W] 0·01, in which the precentages of C, H, O, S and W (water) are those of the natural coals, i. e., in their original unchanged condition without being dried.

Omitting the persons on strike or engaged in the present great lock-out in Great Britain in the 113 trade unions making returns, with an aggregate membership of 462,292, 20,228—or 4·38 per cent—were reported as unemployed at the end of September, compared with 3·55 per cent at the end of August, and with 3·6 per cent in the 110 unions, with a membership of 434,886, from which returns were received for September, 1896.

Sig. G. Mattej has investigated the nature of the red spots which occur on the leaves, petals and other organs of many plants, species of Lysimachia, Oxalis, Hypericum, Myrsine, etc., and states that the pigment is composed essentially of a gum-resinous substance colored by a yellowish-red essential oil, its chemical constitution varying with the species. These spots are not, as a rule, found in the earliest stage of development of the organ, and are evidently the results of the transformation of leucites. They are often surrounded by a membrane, and are always embedded in the parenchyme, and are surrounded by ordinary cells.—Bull. Soc. Bot. Ital., 1897, p. 83.

Apropos of meteorites the following amusing story is told by Sir Robert Ball respecting one of these celestial visitors. A meteorite which fell on a farm in America was claimed by the ground landlord, as his lease reserved all minerals and metals. The tenant objected on the score that the article was not on the property when the lease was executed. The landlord then claimed it as flying game, but the lessee pleaded that the thing had neither feathers nor wings, and claimed it as ground game. But while the dispute was going on the customs officers seized the meteorite, on the ground that the revenue had been defrauded by its introduction into the country without payment of duty.

A dispatch to the Standard from Berlin says that M. Czernik, a Russian chemist, has examined two minerals found in the Caucasus which have apparently never before been analyzed. One of these minerals is a kind of coal ashes, from which M. Czernik obtained a considerable quantity of helium and a quantity of the rare earths which are employed in the manufacture of the mantles used in incandescent gas lighting. The other mineral is called cerite. It consists mainly of argon. M. Czernik's discovery is remarkable from the fact that the new elements helium and argon have never previously been found as minerals in a pure state, but always in combination with other elements.

With little doubt the longest-lived animal in the world is the giant tortoise of the Seychelles Islands. One has recently been presented to the Zoological Society of London, by Mr. Walter Rothschild, which weighs a quarter of a ton. Its known length of life is one hundred and fifty years, its age previous to its transportation to the island of Mauritius being unknown. In 1833 the governor of Mauritius sent to the zoological gardens a tortoise weighing 285 pounds. It was 4 feet 4 inches long, and had been in the island of Mauritius for sixty-seven years. The exact period was known; for this tortoise was brought to that island from the Seychelles in 1766. At that time it was full grown, so that its real age was probably much greater.

Herr H. Molisch has carried out a series of experiments on the influence of the chemical composition of the soil in changing the natural pink color of the flowers of Hydrangea hortensis to blue. He finds that this change is invariably brought about by the presence of alum in the soil; and that the efficient constituent in the alum is the aluminum sulphate, which has, by itself, the same effect as alum. Ferric sulphate produces a similar effect; while with other salts of iron the results were mostly negative. The blue color is due to a chemical combination of the salts in question with the anthocyan which is the cause of the natural pink color of the flowers. The filaments of the stamens are most sensitive to the change in color.—Bot. Zeitung, 1897, 1st Abth., Heft 3.

"The trail of the microbe is over them all," may well be written of every appliance that is to be found in the druggist's shop, or in even the best cared for sick room, says The Independent. The latest offender is the common rubber dropper for eye lotions. A dropper soon after being used becomes covered with a layer of bacteria, and they become coated with an insoluble white flourlike film. The lotion itself has probably been carefully sterilized, but the instant it touches the bulb the film comes off, and the insoluble particles are diffused through the liquid. When one reflects that the amount of contaminated liquid that Tyndall took up on a thread of spun glass was enough to infest a large test tube of sterilized material, and fill it with swarming microbes, we appreciate the force of thoroughly cleansing the dropper.