

Communications.

Our Washington Correspondence.

To the Editor of the Scientific American:

The business of the Patent Office still continues on the increase. For the week ending December 1 the receipts were \$12,975.55; for the succeeding week, \$14,562.25; and for the week ending December 15, \$14,735.65.

PATENT OFFICE DECISIONS.

In the interference case of Callahan vs. Bloomingdale and Kilmer, the latter having in his preliminary statement positively set down the date of his invention as the latter part of December, 1875, and stated specifically what he did at that time, now, after his opponent has filed his testimony, makes a motion to amend his preliminary statement, on the ground that he had made a mistake and that the date of his invention was two months earlier; the Commissioner has decided that as Kilmer did not apparently discover his error until after the opposing party had filed his testimony, he ought not to be allowed to amend his preliminary statement, as it is precisely such cases as this that the preliminary statement is intended to meet. If Mr. Kilmer's memory is defective, and he made his preliminary statement without consulting his witnesses, he should, the Commissioner thinks, have made the correction at an earlier day, and not have waited until he had an opportunity to examine his opponent's testimony. To allow a correction after the taking of the testimony of his opponent and the disclosure of the opposite case, the Commissioner holds would be a very dangerous precedent, and the motion was accordingly denied.

The practice referred to by the Commissioner as to amending a preliminary statement has, however, been varied in at least one instance. The case of W. D. Brooks may be cited as an example (*Official Gazette*, vol. VI., page 296) in which Brooks sought to amend his preliminary statement after the testimony was in, on the ground that at the time of making it he was under treatment of a physician for a nervous disorder that greatly affected his memory; and as he produced affidavits from his physician and six other persons that at the time the preliminary statement was made Mr. Brooks was not of sound mind, that his memory was very much affected, especially as to the matter of dates, not being able to remember one day what was done on the previous one, and seemingly having no recollection at all of the times at which remembered events took place, Commissioner Leggett decided that he should have liberty to amend his case to make it coincide with the testimony taken; or in case Mr. Brooks was still in such a condition as to preclude his making such a statement, and swear to it from his own memory, the case was to be decided upon the testimony as taken, regardless of the preliminary statement.

The interference of Washburn vs. Evans et al. (improvement in barbed wire fences) was originally between Washburn, Evans, Hill, Brown, Crandall, and Haish; but Washburn having so amended his case that in the opinion of the primary examiner it did not interfere with any of the patents except Evans', he declared a new interference between Washburn and Evans. Crandall and Haish, having been left out of the new interference, appealed to the Commissioner against the dissolution of the original case. The Commissioner on examining into the matter came to the conclusion that there was no patentable subject matter common to the cases of Washburn, Evans, Crandall, Brown and Hill which was not included in the patent of Haish; and he expressed his surprise that the patents of Crandall, Brown, and Evans should have been granted in view of Haish's patent of earlier date. These patents being, as the Commissioner states, beyond his jurisdiction, no action of his can affect them, but he objects to authorizing the issue of any other patent for the same subject matter shown in those already granted. The invention in controversy, as stated in the letter of the Interference Examiner, appeared to the Commissioner to include not only what is shown in Haish's patent, but also what is shown in any one of the other patents, and therefore there cannot, in his opinion, be any contest between Washburn and Evans, without also involving a contest with Crandall and Haish. Unless, therefore, Washburn so restricts his claim as to avoid the subject matter shown in the other patents, the Commissioner decides that the original interference with all the parties must be reinstated; but if Washburn limits his claim to the special device shown in Figs. 1, 2, and 3 of his drawing, and eliminates the other matter, the Commissioner thinks that the patent may be allowed.

CONGRESS.

A bill has been introduced by Mr. Barnum into the Senate which enacts that "no patent which has been heretofore amended by introducing new matter into the specification, and reissued under section 53, chapter 230 of the Statutes at large, or under section 4,916 of the Revised Statutes, shall hereafter be declared invalid by any court of the United States, for the reason that the Commissioner of Patents was not authorized by said sections of said statutes, in the case of any patent in which there was neither model nor drawing, to admit proof that the new matter or amendment was a part of the original invention, and was omitted from the specification by inadvertence, accident, or mistake."

Mr. Errett has introduced into the House a bill authorizing the Commissioner of Patents to extend the patent of Calvin Adams, granted February 24, 1857, for a beveled keeper for door locks, which has been already once extended.

Another bill introduced by Mr. Loring into the House extends, without reference to the Commissioner of Patents, for seven years, the patent of J. W. Fowle, granted March 11, 1851, and extended in 1865 by the Commissioner, which extension expired in 1872, since which time the invention covered by it has been public property. The claim covered substantially the use of a "drill attached to the cross bar of the propelling engine, piston rod, or an elongation therefrom, in such a manner that the drill is driven by the direct pressure of the motor upon the piston."

A bill introduced into the Senate by Mr. Conkling authorizes the Commissioner to extend the patent of E. H. Horsford, granted April 14, 1856, extended by the Commissioner in 1870, for pulverulent acid for use in the preparation of baking powder and other purposes.

Another Senate bill proposes to pay to the heirs of W. A. Burt, deceased, "the sum of \$150,000, to compensate them for the use by the United States, in the prosecution of the public surveys, of the solar compass invented by said W. A. Burt."

The Woodruff Scientific Expedition has had a bill introduced into the Senate by Mr. McDonald, which authorizes the Secretary of the Treasury to grant for the purposes of the above expedition a register to a foreign built steamship, and authorizes the president to detail officers of the army and navy, not to exceed five each, for duty with the expedition, who shall report and transmit to the chiefs of their respective departments scientific data and material. The vessel is to be approved by the Secretary of the Navy, and a school is to be maintained thereon with a capacity for at least 200 scholars.

In the deficiency bill passed just before adjournment is an item appropriating \$5,000 for adapting the Babcock lakes in the monumental grounds for the culture of the carp. The carp is said to be a hardy fish, particularly well adapted to the southern waters of our country, and it is hoped that it can be readily made the source of an abundant supply of food. One advantage the carp has over most fish is that he lives mainly on vegetable food, and hence is not so destructive to other fish. It is estimated each pound of bass raised requires the consumption of five pounds of other fish, or a corresponding amount of other similar food. The appropriation is to be used for propagating the carp here, whence they are to be distributed, as soon as they are of proper age and size, throughout the country wherever the waters are suitable for them.

Congress has of late been flooded with petitions relative to the proposed change in the tariff, most of which request that Congress will take no action concerning it until after it shall have ascertained, by an official enquiry, the condition of the industries of the country, and the nature of such tariff legislation as, in the opinion of practical business men, would best promote the restoration of general prosperity. Would not it be a good idea for inventors to interest themselves in procuring and forwarding petitions against the proposed alteration in the patent law? There are, it is true, many good points in the bill, but the sections referred to in your article in No. 24 of the last volume should certainly be eliminated. Let every inventor, patentee, or owner of a patent, or an interest in one, therefore, get up a petition and forward it to the member for his district, so as to be ready for presentation at the re-assembling of Congress on the 10th of January. In addition to the petition, let each one interested in patents make it a point, if possible, to call on the Congressman and Senator for his district, who are now probably home for the holidays, and explain to them the objections to the clauses above referred to, showing them how difficult it is, even under the present law, for an inventor to realize anything at all commensurate with the advantages he confers on the country, and how much more difficult it will be should the objectionable features of the proposed act be incorporated on our present system of patent law.

THE PARIS EXPOSITION.

Gen. Le Duc of the Agricultural Department is studying up the method of arranging his exhibits, and what will be the best articles to send. He proposes to send samples of all our staples and many of the machines used in their preparation. For instance, with the wheat exhibit, he proposes to send a flouring mill, in which the patent process of middlings separation may be shown, the product of which will be disposed of to show what we can do in this line. With cotton will be exhibited a cotton gin, to be run at certain hours, and also everything connected with the cultivation and preparation of our most important export. Cuttings of every variety of our woods, and special products of our forests, as the southern moss used in upholstery. The dairy products of the north, with a model dairy. Honey and the improved methods of bee culture. Maple sugar, with the sap and the syrup. The various kinds of tobacco and the processes of the preparation. Fruits of all kinds, and the processes of drying, canning, etc. Dyestuffs and tanning materials. Broom corn, its cultivation and manufacture into brooms. Rice in various stages of growth, and the processes of preparation for markets. The different species of corn, and all its products.

It is proposed to have a woman's department, and a lady assistant commissioner will probably be appointed to take charge of it.

THE IMPROVEMENT OF THE MISSISSIPPI.

A telegram has been received here from New Orleans, stating that Captain Brown's latest official survey of the channel at the South Pass shows a depth of 22 feet and a

width of 200 feet, which entitles the contractor, Mr. Eads, to a second payment of \$500,000.

In addition to these works at the mouth, it is proposed to aid navigation, by means of reservoirs, upon the head waters of the river, by which it is thought that good navigation may be obtained all the year round, as the floods may, by such reservoirs, be controlled and used to keep up the volume of water at the period of low water. It is thought, however, by some that such reservoirs had better be located at the headwaters of the St. Croix, Chippewa, and Wisconsin rivers (tributaries of the Mississippi), by means of dams, which will serve the double purpose of regulating and improving the navigation of said rivers, as well as the Mississippi, and the Secretary of War has been requested by a joint resolution of Congress to make a preliminary examination of the headwaters of those rivers, to "determine the extent and the practicability of reservoirs upon the same," and to report the result to Congress in February, together with a compilation of all information and reports in his office bearing upon the subject of reservoirs, for this purpose.

MAGAZINE GUNS.

One of the provisions of the army bill recommending the expenditure of \$20,000 for the manufacture of a magazine gun, the Secretary of War has appointed a board to assemble at the Springfield (Mass.) Arsenal, April 3, 1878, to consider and experiment upon such guns as may be brought there for inspection and trial, and to recommend the one considered most suitable for manufacture, should one be found worthy. All persons interested in magazine guns are invited to send samples for trial.

Washington, D. C.

OCCASIONAL.

Gas Poisoning.

To the Editor of the Scientific American:

In the SCIENTIFIC AMERICAN of the 15th is an article from the *Lancet* on poisoning from the common use of illuminating gas. The concluding period is: "It is not creditable to the ingenuity of practical men that no method has yet been discovered by which the advantages of gas as an illuminating agent may be secured without the drawback of slow poisoning, with the host of maladies a depressed vitality is sure to bring in its train."

I have seen in Europe an excellent contrivance to meet the difficulty alluded to. It consists in a glass globe of whatever size may be required for the apartment, whole at the bottom and illuminated with gas. The globe is closely connected with the fixture by which it is suspended, so that there can be no escape at the top of any of the products of combustion.

This fixture is of bronze, like that of a chandelier, about three inches in diameter, variously and tastefully ornamented. This fixture is connected with a small flue concealed by the plastering, and this flue communicates with the chimney or some other avenue to the open air. The products of combustion pass off through this channel, and air is admitted into the globe to support combustion by the same way through a small separate pipe. The air might be supplied through minute holes at the bottom of the globe.

The glass is often ground, but I have seen it elaborately cut, and the globes are sometimes as large as two feet in diameter. The result is a uniform and perfect light in every part of the room.

N. D.

Portland, Me.

The Telephone as a Time Regulator.

To the Editor of the Scientific American:

Allow me to mention an application of the principles involved in the telephone which has not been suggested, so far as I know. It applies to the regulation of clocks to a standard timepiece, and may be made local or general.

Let the pendulum of the regulator oscillate immediately above a permanent magnet wrapped with coils of insulated wire, the same as the telephone. Let the wires from this magnet form a circuit connecting other similar magnets placed one under the pendulum of each clock to be regulated. While each stroke of the regulator will affect its magnet and thus induce a current, which in turn will affect the other magnets, the regulator itself will be equally affected by the other pendulums along the line, and the result would be a rate the mean of all the clocks.

To obviate this the regulator must control the secondary pendulum without itself being influenced by it or the other clocks. This can be done in various ways. A simple one is by making and breaking the circuit of a local battery controlling the secondary pendulum. This secondary pendulum must induce sufficient magnetism to control the sum of that induced by all others along the line, and this will again be more or less, as the rates of the various clocks, or their mean rate, varies from the correct one.

C. A. LOCKE.

Atlanta, Ga., December 12.

A New Regulator for Electric Lights.

M. Armand Billon describes in *Les Mondes* a new regulator for the carbons of the electric light, which consists of a parallelogram articulated after the manner of the Watt governor. On the lateral arms are fixed the carbons, which are placed either in angular position or on the same line, as desired. They are brought together by means of a spring and separated by an electric magnet. These two movements are imparted directly to the parallelogram, so that the effect is instantaneous.