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NEW YORK, SATURDAY, DECEMBER 8, 1900.

## THE PATENT AND TRADE MARK COMMISSION AGREE ON A BILL.

Some two years ago a commission was appointed by the President, under an act of Congress, to revise and amend the laws of the United States concerning patents and trade marks. The commission held public sessions in New York, Chicago, and Washington, at which inventors, attorneys, and others interested had an opportunity of presenting their views as to such changes as they deemed necessary. The responses to a large number of circular letters were also considered. Since this time Mr. Francis Forbes, the chairman, Judge P. S. Grosscup, and Ex-Assistant Commissioner of Patents Arthur P. Greeley have been giving the subject their attention, and are now prepared to report at the coming session of Congress amendments of the patent laws, the object of which is to make them conform with the practice under the Convention for the Protection of Industrial Property concluded at Paris, March 20, 1883. The commission will report a new trade mark law.

This will be an epoch-making statute, and it will create much discussion between those who favor a "declaratory" trade mark law, making the registration a recognition of ownership, and an "attributive" trade mark law, which creates and may create ownership by registration even though the trade mark itself is not used immediately. The bill will be considered in a subsequent issue. The commission will also report several bills to amend the patent laws in minor details, relating especially to the filing of caveats and the appointment of foreign administrators.

Mr. Forbes and Assistant Commissioner of Patents W. H. Chamberlin sailed November 20 as delegates to the Convention for the Protection of Industrial Property, which will be convened at Brussels, Belgium, on December 11, being an adjourned meeting from that held in Brussels in December, 1897.

The above bills, especially that which relates to reforming and remodeling trade mark practice, will be watched with the greatest interest, not only by the profession at large, but by all those members of the community who have any property rights in trade marks as such. The present practice of allowing the owners of trade marks to use their own judgment as to whether they shall or shall not register their mark is the one feature of our trade mark laws which is not up-to-date, or in harmony with the progressive spirit of the time. Many of our readers may be surprised to know that there is no way by which the originator of a new trade mark can ascertain whether or not the device or name which he has conceived and adopted is original with him. He may go to some expense in having a search made in the Patent Office; his attorney may correctly advise him that as far as the Patent Office is concerned, nothing stands in the way of his using the trade mark he has adopted; and having taken the only precaution open to him in advance of actually putting the mark in use, he, perhaps, spends a considerable amount of money in having labels and imprints made bearing his trade mark. He puts his goods on the market, and perhaps expends large sums in advertising those goods. Some months or years may elapse before he receives a notification from some petty manufacturer that he must discontinue using the mark, and that he must be answerable for damages, as he, the petty manufacturer, had placed goods bearing the same mark upon the market ten or perhaps twenty years before. A case of this kind seems exceptional, but those attorneys who are actively engaged in practice are aware that this is an every-day occurrence. Prominent attorneys, know of cases where thousands and hundreds of thousands of dollars have been spent in advertising before it is discovered that the mark which had been so prominently put before the public is an infringement of a mark which is the property of some rival manufacturer. No recourse is open to the merchant under these circumstances. He is obliged to submit, perhaps, to the rather cruel terms of a rival, or he is obliged to discontinue the use of

the mark and lose the benefit of his advertisements, and perhaps, in addition, to pay heavy damages for his innocent act.

How may evils of this character be corrected? It rests with the able body of commissioners appointed by the President to solve this problem, for certainly no greater evil exists to-day in our trade mark practice. It would seem that a law could be mapped out without any great difficulty which would correct these abuses and give the industrial classes relief from the present chaotic conditions. Probably the simplest method to correct the abuse is to frame a law extending trade mark protection only to those who shall register their trade marks in the Patent Office within a reasonable time. Many substantial property rights are protected alone by trade marks, and there is no reason why the title to such property should not be recorded in the same way as the ownership of a piece of real estate is now recorded. It will then be possible for anyone seeking trade mark protection to ascertain in advance of applying for registration what his rights are, what the probabilities of allowance will be, and whether he is likely or not to infringe the rights of some other merchant. In carrying out such a provision it would be necessary, of course, to modify the present exorbitant fees of the Patent Office for filing trade marks. The government fee for registering a trade mark is now \$25. This is far in excess of the needs of the case, where, with proper classification, the matter of examination is simple, and the registration fee should not exceed \$5, or at the outside \$10. This will render it possible for merchants to freely register trade marks for all their brands of goods. We have every reason to believe that the Commission will have some plan to lay before Congress which will prove of great relief to the business community.

## FIREPROOF DOCK CONSTRUCTION.

Evidently the lessons of the fire which swept out of existence the North German Lloyd docks at Hoboken have been laid well to heart by the company. The plans for the new docks show that pretty well everything that can be done to make the construction fireproof will be incorporated in the piers, pier sheds and terminals. The fundamental feature of the new plans is the erection of a granite and concrete sea-wall along the 900 feet of water front which comprises the property of the company, and the erection on this of a two story building, 130 feet in width by 850 feet in length, which will be of fireproof construction, the columns being filled and covered with concrete and both floors consisting of steel girders with brick arches turned in between. The lower floor will be devoted to cargo, and on the upper floor the passenger traffic of the arriving and departing steamers will be handled.

It is particularly in the construction of this building that the company have shown a wise appreciation of the awful extent of the fire risk which attends the crowding of a departure pier during the sailing of a steamer; for had the recent conflagration occurred when some 1,200 or 1,500 souls were scattered throughout the full length of the pier, it is probable that seventy-five per cent of the number would have been lost. To preclude the possibility of any such disaster, passengers will, for the future, be required to watch the departure of the steamers from the main building above described; and to provide them with a clear view of the vessel as she pulls out into midstream, a promenade with awnings has been arranged along the full length of the roof facing the river, an arrangement which will give a better view of the ship, and will place the passengers, in the event of a fire, in close proximity to the street. From the main shore bulkhead building there will extend into the river three piers, respectively 910 feet, 894 feet, and 874 feet in length, the first two being 80 feet, and the third 90 feet wide. Although these piers will be built upon wood piling, they will be protected against fire by a concrete floor covered by planking and by a sheathing of oak on the outside of the pier reaching from below the water line to the deck, this sheathing being designed to prevent fire from attacking the pier from underneath. The pier sheds will be protected from fire by filling and sheathing the steel columns with concrete, and by covering the wooden walls of the pier entirely with tin, which will be locked and fastened so as to give the wood a complete protection. This form of slow-burning construction is considered preferable to an all-metal construction, which, as the last fire showed, will warp and bend if exposed to a fierce heat. Protection against a rush of fire through the interior is provided by three transverse fire walls on each pier and five brick fire walls in the bulkhead building. To these will be added an arrangement of automatic fire sprinklers on all floors, a cable system of automatic fire alarms with loose coils of the same cable laid over stored merchandise, and an independent system of fire hose and hydrants extending through all the buildings.

We would suggest here that in view of the fact that some excellent systems of wood fireproofing have been perfected, the North German Lloyd Company, if they have not already determined to do so, would add enor-

mously to the security of the building by using only fireproofed wood, at least in the piers and pier sheds.

## CONGRESS AND THE ISTHMIAN CANAL.

One of the first questions to come before Congress will be that of the construction of the Isthmian Canal. As that important matter now stands, the Hay-Pauncefote treaty is still subject to negotiation, and is now in the hands of the Senate; the President's Commission has yet to make its report; and the Hepburn Canal bill, which passed the House of Representatives last May, has yet to be considered by the Senate. This bill authorizes the President to acquire the necessary territory to build the Nicaragua Canal; appropriates ten million dollars for commencing the construction; and authorizes the Secretary of War to proceed immediately with the work. It ignores both the President's Commission and the treaty above referred to. The President's Commission, which is the largest and most distinguished that has ever studied the canal question, was sent out for the purpose of determining which of all the possible routes across the Isthmus is the best from a purely commercial and engineering standpoint.

This Commission, we understand, is about to report. If expert testimony counts for anything in our legislative halls, its word as to the location of the canal will be practically final. If it should report in favor of Nicaragua, there is nothing to prevent the work of construction being pushed through immediately with all the power and resources of the nation behind it. Should the Commission report that the Panama is the better canal to construct, and what is far more important, to operate, there would then come up for consideration the question of the terms of purchase required by the French owners thereof. If the Commission should recommend the Nicaragua route, there would be no such preliminary negotiations with an existing company to delay construction; the necessary rights, moreover, have been secured from Nicaragua.

## THE CHIEF CONSTRUCTOR OF THE UNITED STATES NAVY.

The retirement of Rear-Admiral Philip Hichborn at the close of his second term as chief constructor of the United States navy, which will occur on March 4 next, leaves vacant one of the most important official positions in the administrative economy of this country; and we are much gratified to learn that the President will appoint from among our naval constructors one who, more closely than any other, has been responsible for the creation of our new navy and its maintenance in a state of thorough-going efficiency.

Naval Constructor Bowles, who, on and after the fourth of March, the distinction of his new office will add that of being the youngest rear-admiral in the American navy, was born in Springfield, Mass., on October 7, 1858. In 1875 he entered the Naval Academy as a cadet engineer, but early in the course decided to become an assistant naval constructor. At his own request, made during his last year at Annapolis, he was sent for a course of study to the School of Naval Architecture at the Royal Naval College, Greenwich, England, and the system of instruction thus inaugurated has since come to be recognized as the highest prize attainable by the graduates of the Naval Academy.

On his return, in October, 1882, he was detailed as Secretary of the Naval Advisory Board, which was then charged with the control of the design and construction of the first ships of the new navy; and it was mainly due to his efforts that several ships of extremely questionable value and antiquated design, which had already been recommended for construction, were sufficiently modified to bring them up to the standard represented in the "Chicago," "Boston," and "Atlanta," the pioneer vessels of our modern fleets. With a thorough knowledge of the principles of his profession, Mr. Bowles combines a large amount of reorganizing and administrative ability, which made itself felt conspicuously in the thorough reorganization in 1886 of the Norfolk Navy Yard, and later in the reconstruction and equipment of the New York Navy Yard, Brooklyn, to which he was detailed in 1895. His general popularity has suffered only when he has come in direct contact with the political office-seeker, whose special qualifications have never found any harmonious setting under the system of administration instituted and rigorously carried out wherever Mr. Bowles has been in charge.

Unlike his successor, the retiring incumbent of the office, Rear-Admiral Philip Hichborn, is identified not merely with the new, but with the old navy. He received his commission as Assistant Naval Constructor in 1869 and his commission as Naval Constructor in 1875. In 1880 he was selected as a member of the first Advisory Board, from which, as we have seen, proceeded the early vessels of the new navy. In 1884 he was detailed to make a special tour of the dockyards of Europe, and his valuable report to the Department is considered a standard work upon the subject. In November of the same year he was ordered to Washington as Assistant to the Chief of the Bureau of Construction and Repair, and also as Naval Constructor at the Navy Yard, Washington. Mr. Hichborn was ap-

pointed Chief of the Bureau of Construction and Repair in September, 1893, and four years later he was reappointed for his second term, which is now drawing to a close.

It is fitting at this time to refer to the fact that the technical public is greatly indebted to the retiring Chief of the Bureau of Construction for the unvarying courtesy with which he kept the public informed, through the technical press, as to the plans and progress of the vessels of our new navy.

#### INTERNATIONAL CONGRESS OF RAILWAYS AT PARIS.

Among the most interesting of the papers read at the International Congress of Railways, recently held at Paris, is that relating to the electric railroads now existing in Europe, by Messrs. Auvert and Mazon, two prominent engineers connected with the French railroads. The authors describe in detail the leading railroads of Europe on which electric traction is used. The present abstract includes several of the most important systems.

##### ZERMATT-GORNERGRATT (SWITZERLAND).

This mountain railway was the first to use three-phase currents. The line, which was opened near the end of 1898, is an extension of the line in the valley of the Viège. It has a total length of five and a half miles, with a maximum grade of 20 per cent. Its construction has presented great difficulties. The track is 39 inch gage, laid upon iron ties. The rack and pinion system is used, with double rack between the rails. The generating station at Findelenbach has three horizontal turbines, fed by a 320 foot fall; each turbine is direct-connected to a dynamo of 250 horse power, one set being used as a reserve. The dynamos, of the Brown-Boveri type, have a fixed armature and revolving field and work at 40 cycles per second. The current generated at 5,400 volts is transmitted to three transforming stations, one of which is in the station itself and the other two at three and five miles along the track. Each of the stations has a transformation capacity of 180 kilowatts, and includes two groups of three transformers of 30 kilowatts. The two trolley wires are supported at intervals of 80 feet by cross-wires; the rail serves as the third conductor. For the traction, locomotives are used having each two motors of 90 horse power, independent of each other. The motors, fixed to the truck, transmit the effort to the main axles by a double gearing, whose ratio is 1 to 12; the motors are of the triphase non-synchronous type and have six poles, making 800 revolutions per minute, and are built to stand a considerable overload. Above are mounted the resistances for the motors and the various apparatus and instruments. The locomotives weigh 11,500 tons; their axles are 80 inches apart. Open and closed passenger cars and freight cars are used. The open cars have five compartments of 10 places and the closed cars contain 60 places.

##### STANSSTADT-ENGELBERG (SWITZERLAND).

This line is fourteen miles long, and is divided into three sections as to track; the first section, from Stansstadt to Obermatt, being in ordinary track, the second, from Obermatt to Gherst, in rack and pinion, and the Gherst-Engelberg section in ordinary track. In the first and last sections the average grade is 5 per cent, but in the middle section it reaches 25 per cent. The central station of Obermatt has two dynamos of 200 horse power and two exciters of 22 horse power coupled directly to horizontal turbines. The hydraulic power necessary has been obtained by using a number of small streams which flow into a covered reservoir connected with the station by a 10-inch cylindrical conduit of about one mile long. The height of the fall is about 1,000 feet. The triphase currents are produced at 750 volts and 65 cycles. The section next to the station is fed directly, and for the others a system of high tension distribution at 5,000 volts is used, with transformers at the substations to lower the tension to 750 volts. The current is taken to the motors of the locomotives and cars by two trolley lines 3 feet apart and 14 feet above the track. The rolling stock consists at present of two locomotives, five motor cars and four freight cars. The locomotives, which weigh 17 tons, serve to draw the freight trains and push the cars upon a portion of the steep grade. They are mounted upon two axles and carry two motors, which are connected by double reduction gearing to the pinion, which engages in the rack between the rails. The motors, of 75 horse power, give 650 revolutions, and the speed along the rack and pinion system is about three miles per hour; on the ordinary track it reaches seven miles an hour. The current is taken from the overhead line by wire loops. The motor cars are 45 feet long, and have 44 to 48 places; they are carried upon two trucks of two axles each. Upon one of the trucks are mounted two 35 horse power motors, making 480 revolutions, which are connected with the axles by gearing. The circulation over this route is effected as follows: From Stansstadt to Obermatt the distance is about ten miles; this section is traveled over by the motor cars, with a trailer at certain times. At Obermatt the rack and pinion system begins, and the car is pushed up the

grade by the locomotive for a length of one mile to Gherst, after which the car runs upon an ordinary grade to Engelberg by its own motors.

#### METROPOLITAN UNDERGROUND RAILWAY AT BUDAPEST.

This underground road extends from the center of the city to the exterior limits at Varosliget. It was put in operation in 1896, being intended as the beginning of a metropolitan system. The line, like all the tramway lines of the city, is fed by a central station which supplies continuous current at 300 volts. The road starts from the Danube and reaches by a series of curves of small radius the southern end of Andrassy-Strasse, which the line follows in a straight line under the middle of the street. The total length of this line is about two miles of double track, standard gage. The heaviest grade is 2 per cent, but one curve of 130 feet radius has a grade of 18 per cent. On account of the numerous sewers below the street, the line was laid out so as to pass above these, so that the height between the rail and the iron structure upholding the pavement is about 10 feet. The axes of the tracks are 11 feet apart, and the width of the tunnel is nearly 20 feet. The iron framework is formed of I beams with vaulting between; the structure is consolidated by pillars placed 12 feet apart along the axis of the tunnel. The track is laid upon metal ties. There are ten stations, the platforms being 16 inches above the rail. They are reached from the street by staircases starting from a station erected on the pavement. The current is taken from two conducting rails suspended above the track; these are of steel and are fixed to the overhead beams upon insulators, being 3 feet apart. Each car carries two rubbing contacts which take the current. The central station which supplies this line as well as the other tramways of Budapest, is located in the city about half a mile from the nearest point of the road. It contains three units of 600 horse power (horizontal tandem compound engines coupled to Siemens dynamos giving 1,000 amperes and 300 volts); four units of 300 horse power (horizontal engines coupled to Siemens dynamos of 500 amperes); two units of 80 horse power used as a reserve. This gives a total capacity of 3,160 horse power, or normally 1,600 kilowatts. The rolling stock consists of motor cars of two trucks of a special construction. Two types are in use at present; the first, in which the motors act upon the axles by chain transmission (a type which will probably not be continued), and a second, in which the motors are mounted directly upon the axles. Each truck of two axles has a single motor of 30 horse power, giving a speed of 15 miles an hour. The car has a central space for 42 passengers and a cabin at each end for the motorman; the cars have a total height of 8 feet. The current is taken by horizontal bar contacts supported upon springs. An electric braking system is provided by reversing the current in the motor fields, transforming the motors into generators, and the current set up is sent into a series of resistances, which may be varied at will.

##### DUSSELDORF-CREFFELD ELECTRIC RAILWAY.

This is one of the most important of the German electric railroads. It unites Düsseldorf on the left bank of the Rhine to Creffeld on the right bank, the distance being about 14 miles. The line is standard gage; at present it is single track for the most part, but is laid out so as to allow double track to be used later. From Düsseldorf the line crosses the river in double track over a wide bridge, and from Oberkassel, the village on the opposite bank, to Creffeld single track is used except at a few stations. The track is laid to take the rolling stock of the Prussian State railroads. This line was begun in the middle of 1897 and commenced operation at the end of 1898. On account of the competition from a neighboring parallel road, the new line was laid out for a speed of 24 miles an hour. The traction is effected by motor cars taking the current at 600 volts from two overhead wires. The generating station, situated at Oberkassel, supplies the road as well as a number of works in the vicinity. It has two engines of 270 horse power driving two direct current dynamos of 330 amperes and 600 volts, one group being used as a reserve. The cars are of the two-truck pattern, each truck having on one axle a 40 horse power motor, mounted directly. The cars are about 40 feet long and contain 50 persons in all. The authors describe the London Underground Systems, Jungfrau Electric Railroad, etc., and also the use of electric locomotives on the Paris-Lyons-Mediterranean road; the latter will be illustrated in a subsequent article.

#### REGISTRATION OF UNITED STATES PATENTS AND TRADE MARKS IN CUBA.

In our issue of November 24, 1900, we called the attention of American manufacturers and merchants to the necessity for registering trade marks and patents, so far as they have been extended to Cuba, in the Mercantile Register kept in that island. A penalty of \$35 was fixed for failure to register within eight days of the extension of the patent or trade mark right to Cuba, but for patents and trade marks already extended, grace was given up to December 1, 1900.

We take pleasure in informing our readers that this excessively short grace has just been extended to the end of the current year, thus allowing American patentees and trade mark owners sufficient time to comply with the new regulations and to escape being fined.

#### LETTERS FROM PEARY.

Mr. Herbert L. Bridgman, secretary of the Arctic Club, has given out some extracts of letters to Mrs. Peary. They reached this country after she had started to go to her husband. They contain the first direct news from Lieut. Peary since August 28, 1898.

Mrs. Peary left Sydney, Cape Breton, on July 20, with her daughter, to join her husband at Etah, Greenland, on the "Windward." She was last reported at Disco, Greenland, on August 20. These letters from Peary were carried by natives to the camp of the Stein party at Cape Sabine, and thence conveyed to Cape York by Dr. Kahn, who boarded the steamer "Eclipse" on June 9, and was landed by her at Dundee, Scotland, on November 9.

It is an interesting fact to note that the lieutenant has not the slightest knowledge that his wife and daughter are on their way to meet him, although neither she nor any of his friends know just where he is now.

Neither he nor Mrs. Peary is aware of the death of his mother, which occurred three weeks ago.

The extracts from the letters follow:

FORT CONGER, LADY FRANKLIN BAY,  
March 31, 1900.

Just a line to go down to a whaler by returning natives. I arrived here at midnight of the 28th, twenty-four days from Etah. Six and one-half days of this time we were held in camp by heavy windstorms. The doctor and Henson each left Etah with natives before we arrived here. The journey was a tedious one, owing to the storms, but not an uncomfortable one for me. A number of the dogs died on the way, but I had an ample number for the work ahead. Twenty-one musk oxen were killed in sight of the fort the day before I arrived, so we have an abundant supply of fresh meat.

After resting and feeding the dogs a few days longer, I shall go on with Mott and the best Esquimaux up the northeast Greenland coast. The doctor and the other Esquimaux will remain at the fort hunting. I am in good condition, and the journey shows me that I am myself again. If I do my work this spring, I shall come back and hasten down to meet the ship, and turn back with her. I hope to write again by natives whom I shall send back from some point up the Greenland coast. Dr. Diedrick wishes to be remembered.

CAPE D'URVILLE, GRINNELL LAND.

I write this note on the chance of Stein and Dr. Kahn reaching Upernavik by way of Melville Bay. The fall and winter passed comfortably at Etah without even a day's indisposition on my part. I have husbanded myself carefully. My feet have given me very little trouble, and now I feel that I am myself again. I am now at the "Windward's" winter quarters, with the rear division. Mott and the doctor are ahead, with two other divisions, all on the way to Conger. All but a few of the natives will return at once from there, leaving a few with me. I shall push on from Conger without delay, perhaps by way of the Greenland coast. I shall strain every nerve, and, God willing, shall do my work this spring, that I may come back this summer. I send duplicate of this to Cape York for a whaler. (Dated March 12, 1900.)

#### FAILURE OF THE DISPLAY OF LEONIDS.

The display of Leonids this year has been very disappointing, only a few having been seen. It is probable that their orbit has become changed, taking them farther away from us. Assistant Prof. Wendell, of Harvard University, says that unless during the next thirty-three years there shall be another change in the orbit of the meteors, bringing them back near the earth, we shall see no more of the ancient November shower of Leonids. The few which have been seen this year were stray meteors which had wandered out of the regular path. The principal cause of the change in the orbits of the Leonids is that there has been some disturbance in space which has brought a large body near the path of the Leonids, thus exerting an attraction on them and causing them to change their orbit.

#### SUGAR INVENTIONS WANTED.

The Hawaiian Planters' Association has offered \$6,500 in prizes to inventors of labor-saving machines to be used in the sugar business. Three machines are wanted, which planters think some one should be able to invent, and they are willing to pay for each. For a machine to cut cane the planters offer a prize of \$2,000 to the man who submits the best plan. This sum will be increased to \$5,000 if the design is accepted and proves efficient. A cane transporter and a machine to load cane into cars are also wanted, and for these planters offer \$1,500.