DECISIONS RELATING TO PATENTS.

U. S. Circuit Court—Eastern District of New York.

ELECTRIC RAILWAY COMPANY OF THE UNITED STATES VS. JAMAICA & BROOKLYN RAILROAD COMPANY.

Townsend, J.:

Claim 1 of Letters Patent No. 407,188, issued July 16, 1889, to Stephen D. Field, for the combination of a stationary dynamo-electric generator driven by a suitable motor, a circuit of conductors composed in part of an insulated or detached section of the line of rails of the railroad track, a wheeled vehicle moving upon or along said insulated section of track, an electro-magnetic motor mounted upon said vehicle for propelling the same and included in said circuit of conductors, and a circuit-controlling device placed upon said vehicle, examined in view of the prior state of the art, and held to be void for lack of invention, the only improvement therein being the selection of a generator producing a current sufficient to operate the railway.

Where a caveat described a stationary dynamo-electric machine whose wires connected with the rails of a railway, which with the wheels of the cars were to serve as conductors of the current to a secondary dynamo-electric machine placed on the car itself and geared to its axles, and a patent subsequently issued to the caveator, in which, instead of using the rails as conductors and the car wheels as collectors, a third rail and an additional collector were used, held that the caveat did not describe the same invention patented by the caveator, and its date of filing could not be availed of to defeat a subsequent publication by another of the invention embraced in the patent.

Where a patentee was advised by the Patent Office that his application disclosed, but did not claim, an invention claimed in a pending application by another party, and upon this information added claims for the invention, and the resulting interference was decided in his favor, but subsequently canceled the additional claims because the Patent Office on change of opinion rejected them on reference to a patent and took his patent with his original claims, held that he was not estopped from insisting on his narrower construction of the original claims in order to avoid anticipation of them as not including the invention in the canceled claims nor met by the patent that caused their rejection and cancelation.

Bill dismissed.

Where the patents of several parties are assigned to a corporation, which corporation subsequently reassigns to each party his patents in order that he might resume what he had put into the corporation, held that this was a mere transfer of stock in the corporation and did not estop the corporation from denying the validity of the patents.

Submarine Telegraphy.

The twenty-fifth anniversary of the establishment of submarine telegraphy to the far East was recently celebrated at the Imperial Institute, London, by a banquet, which was given by the Eastern and the Eastern Extension, Australasia, and China Telegraph Companies, followed by a reception which was attended by the Prince of Wales. Sir John Pender, M.P., the chairman of the two companies, presided at the banquet, which was served in the Grand Hall. The hall was decorated with flags of all nations and of the British colonies. The guests numbered about 450.

After the loyal toasts had been duly honored, Lord Kelvin proposed "Armed Science," and Lord Wolseley responded for the toast. He had often thought, he said, how immensely facilitated the great Duke of Wellington would have been in his great campaigns had the present means of rapid communication by railways and steamships existed. Perhaps it was not generally known that we were the first people who made use of submarine telegraphy in war—in the Crimea. The United States ambassador proposed "Submarine Telegraphy in its International Aspect," and the lord mayor followed with the toast of "Submarine Telegraphy in its Commercial Aspect." The chairman, in acknowledging the toast, referred to the early days when submarine telegraphy had its troubles, its disasters, and its triumphs. The United States was conspicuous in the part it took, not only in its scientific, but also in its commercial aspect, and the names of Morse and Cyrus Field would ever be associated with it. (Cheers.) He was himself connected with it at its dawn, and was connected with it in its successful and permanent establishment. When it was almost impossible to raise money for the 1865 cables, the Telegraph Construction Company was formed, over which he presided, and they were indebted to that company for the good work they then and had ever since done. Even in those early days it was proved by their late colleague and managing director, Sir James Anderson, to be possible to pick up and repair a cable in 2,000 fathoms of water, and this important fact largely increased public confidence in submarine cables as a property. For that great work all credit was due to Sir J. Anderson, who devoted the best years of his life to the development of submarine telegraphy. (Hear, hear.)

They were also indebted to Sir William Thomson, Cromwell Varley, Fleeming Jenkin and many other distinguished men for their scientific inventions, which enabled submarine telegraphy to achieve the great scientific and commercial success it had since become. At the present time there were 11 cables in the Atlantic, and another was in course of submersion, so that with the aid of duplex working, for which they were indebted to Dr. Muirhead and others, the carrying capacity was practically equal to twice that number of cables. The first attempt to provide the public with submarine telegraphs to the East was in 1859, when a cable was laid down the Red Sea and along the coast of Arabia and through the Persian Gulf to Kurrachee. Unfortunately this cable worked only a few days in its entire length, and it was afterward abandoned.

The success attending the Atlantic cable caused the idea of submarine telegraph communication to the far East to be again considered and carried into effect by the formation of various companies, which were afterward merged into the Eastern and the Eastern Extension Telegraph Companies. Twenty-five years ago on the previous day the company that laid the submarine system from Great Britain to the far East was registered. At that time the nucleus of the present system of eastern telegraph consisted of about 900 miles of cable, with a capital of £260,000. That day they owned 51,325 miles of cable, and had a joint nominal capital of over nine millions sterling, but which, at the present market quotations, actually represented nearly fifteen millions sterling. (Cheers.) Two years after the registration of the eastern companies the whole submarine system between Great Britain and China was completed and in working order. A year later the Australian colonies enjoyed the benefits of daily intercourse with the mother country and the rest of the world.

It was worthy of note that none of these companies were, in their early days, assisted by any government monopolies, subsidies, or guarantees, as in the case of the original Red Sea cables, so that it might truly be said that the government and mercantile communities of the world owed the benefits arising from direct submarine communication during the past 25 years entirely to British enterprise. (Hear, hear.) In those days submarine telegraphy was looked upon as a very risky investment. To-day it was recognized as one of the soundest investments in the market. South America was also connected by companies associated with eastern telegraphs, and quite recently communication with Chile and Peru had been further strengthened by the establishment of additional lines, under his own presidency, across the Andes. In short, wherever the British flag was flying and commerce warranted a fair prospect of remuneration, cables had been laid, and this policy would be continued in the future. (Cheers.)

At present the total mileage of submarine cables was in round numbers 152,000 miles, of which 90 per cent had been provided by private enterprise and 10 per cent by the various governments, costing altogether over forty millions sterling. The total length of land wires throughout the world was over 2,000,000 miles, estimated to have cost about £65,000,000. If the cables and land lines were added together, a combined capital was represented of £106,000,000. Governments had shown their high appreciation of submarine telegraphy. Indeed, one of our leading statesmen, remarking on its great progress and vast sphere of usefulness, recently said that he looked upon it as one of the greatest achievements of the Victorian age, if not in the history of the world. (Cheers.) When a Pacific cable was really required, the companies which he represented would not be found backward in meeting public requirements.

The Australian colonies during the last 25 years had shown their appreciation of the benefits of submarine telegraphy by assisting the Eastern Extension Company with a substantial subsidy to duplicate its cables between Penang and Australia. The majority of the Australian colonies also entered into an arrangement with the Eastern Extension Company, under a guarantee of half risk, to reduce the rates by 60 per cent. Twenty-five years ago it was considered wonderful to receive a message from India in a few hours; now telegrams arrived in a few minutes. They commenced business by carrying at the rate of 400,000 messages per annum; now they transmitted over 2,000,000. Their communications were maintained by nine steamships, fully manned and equipped with all the latest scientific appliances for at once repairing the cables when broken. Few events of international interest took place in which submarine telegraphy had not played an important part.

It might safely be said that submarine telegraphy had been provided wherever required by commerce, and that it had been enormously beneficial to the public at large. (Hear, hear.) It had, undoubtedly, equalized trade throughout the world, and brought the producer and consumer closer together, enabling the producer to obtain better markets and the consumer the benefits of international competition. It had over and over again prevented diplomatic ruptures and consequent war, and had thus been instrumental in promoting peace and happiness throughout the world. (Cheers.) He could not finish without acknowledging the good work and hearty co-operation which they had received from their Danish friends, the Great Northern Telegraph Company, and he also desired publicly to acknowledge the good work and co-operation which they had always received from their officers and staff throughout the service. (Cheers.)

Families and House Ownership Here and in France.

It appears from statistics just published by the French government that the population of the republic of some 38,000,000 is sheltered in about 9,000,000 dwelling houses. This seems to mean that houses are increasing at a faster rate relatively than population. In 1886 the number of such buildings was given as 7,706,137, which contained on the average 4·93 persons. These later statistics point to no particular increase of population in the past eight years, but to such an increase in the number of houses as to give one dwelling to each group of only a trifle over four persons. This is an interesting exhibit which becomes all the more so when comparison is made with the United States. The population of France is many times more dense than that of this country—much more dense, in fact, than that of the North Atlantic States. It averages about 187 to the square mile; where in this country the population averages 21 to the square mile. and in the North Atlantic States some 107 to the square mile. But the more scattered population of the States is housed in fewer dwellings relatively than the denser French population. The fact seems to be that while the family is still larger in the United States than in France, in both countries it is growing smaller; and in both countries, consequently, the number of dwellings is increasing at a faster rate than the number of inhabitants. For the last five census years the average number of persons to a dwelling and to a family in the United States has been:

	Persons to a dwelling.	Persons to a family.
1890	5·45	4·93
1880	5·60	5·04
1870	5·47	5·09
1860	5·53	5·28
1850	5·94	5·55

These figures point to the conclusion stated above, and the shrinkage in the size of the family accounts for the shrinkage in the number of persons to a dwelling. In France in 1886 the average family numbered 3·9 persons, when the average number of persons to a dwelling was 4·9. What is likely to be the average size of a family in the United States when the uniform density here reaches up more closely to the French figures? The French are a notoriously thrifty and industrious people, and their small families may be looked upon either as a cause or an effect of the thrift, or something of both. But it is still surprising to learn from these late government statistics that of the 9,000,000 dwelling houses in the French republic, 61 per cent are the property of resident owners. Here in the United States, in spite of the vastly superior material or physical advantages possessed by labor, in spite of our natural wealth and our well known industry, we can yet make no such showing as that. Statistics in regard to the ownership of farms and houses in 23 States, fairly typical of all sections of the United States, have been given out by the Census Bureau for 1890, and they show that only 47·5 per cent of the farms and houses together are owned by the occupiers, the remaining 52·5 per cent being occupied by tenants hiring the same at a rental. Taking the farms alone, only 32·3 per cent are worked by tenants; but this is a large proportion for such a country, and it is growing from year to year. But of homes in the cities and villages, 63·2 per cent are rented by the occupants.

The tendency in this country is apparently for the moment away from that situation in life which most clearly marks the existence of prosperity and thrift and independence among the working masses—the large and growing ownership of the farms and homes by their occupants. Is it due to extravagance and heedlessness in individual expenditure or underlying hard conditions of industry and wealth distribution? To the former causes, mainly. Conditions of work here are better, certainly, than in France. But we lack the French thrift, the close living within income. We may hope, however, that the spread of building societies and savings banks and the like, will do much to right these less creditable tendencies in the United States.—Springfield Republican.

Antidote for Prussic Acid.

Dr. Johann Antal, a chemist and toxicologist of note, has reported to the Hungarian Society of Physicians that he has discovered a new chemical compound, the nitrate of cobalt, which, he says, is a most efficacious antidote to poisoning by cyanide of potassium or prussic acid. He tried the antidote first on animals and afterward on forty living persons who had been accidentally poisoned with prussic acid. In not a single case did the antidote prove a failure.