

AURORA CUTS OFF CITY ALL ITS WIRES CRIPPLED.

Wide Disturbance Due to Electro-Magnetic Phenomena.

The Atlantic cables were interrupted and the telephone and telegraph wires throughout Eastern New York, Pennsylvania and the New England States were rendered practically useless yesterday when aurora borealis decided to take a hand in the Hudson-Putnam celebration. Aurora borealis is the name given to the astronomical and electrical phenomena term an electro-magnetic phenomenon. The words are Latin in origin, and mean "northern dawn or light." The phenomenon, as a rule, manifests itself as an illumination of the heavens in the Arctic regions, and is thought to be the result of a discharge of electricity through the atmosphere.

The disturbance was first noticed about 7 o'clock in the morning by the wire chiefs in the telegraph offices. At about the same time the Atlantic cable was also affected. The cause of the disturbance was immediately recognized by the operators, although they say that rarely if ever before has the attack been so severe. The effect of the phenomenon upon the wires is always intermittent in character. The wires appear to be working all right, until suddenly a "break" occurs, which may continue for some moments. Then the wires start working again, but at first not with the same vigor.

As nearly every wire radiating from New York was out of commission for some time, it was difficult to ascertain the extent of the disturbance. It is known, however, that the phenomenon first made itself felt over Southern New England and then took a westerly course, affecting all circuits as far west as Pittsburgh. The telephone wires between New York and Chicago also were completely paralyzed while the disturbance was at its height.

It was nearly 9 o'clock before the wave movement gave any signs of passing. The Western Union offices reported that the disturbance as far as they were concerned wholly subsided at 10 o'clock, but came on again in milder form at 2 o'clock in the afternoon. At one time the measuring instruments in the telegraph offices registered the presence on the wires of over five hundred volts of electric current. This is said to be a greater voltage than is furnished for the operation of any of the land wires and was sufficiently powerful to light several of the incandescent resistance lamps attached to the telegraph wires. An array of brilliant sparks flashed across the gaps when the keys were opened.

The aurora still baffles the scientists, although it is known to be closely associated with the electro-magnetic system of the earth, both in origin and visibility. The intermittent effects are not fully understood, what is considered the most probable explanation being that solar radiations possess electro-magnetic energy which, upon reaching the earth, divides into two principal fields, one passing through the earth nearly parallel to the line joining the two magnetic poles and the other passing through parallel to the plane of the elliptic. The first field is governed by the law of magnetic induction and the second by the law of magnetic refraction.

Boston, Sept. 25.—The disturbance of telegraph and telephone lines caused by the aurora, while noted early in the day in this section, was more marked during the early afternoon than before that time. When the invading current was strongest wire chiefs found it expedient to take the local batteries from the wires entirely and depend upon the strange influence for current, but the plan did not work well. It was found here that where the wires were laid underground the lines had largely escaped interference.

Washington, Sept. 25.—The severest magnetic storm recorded at the Cheltenham (Md.) magnetic observatory of the Coast and Geodetic Survey since the observatory was put in operation, in April, 1891, was indicated on that institution's delicate instruments to-day. The prevalence of this storm was first noted by the observer just before 8 o'clock this morning. Officials of the Cheltenham Observatory say that the reported interference in the working of the telegraph lines this morning was no doubt due to the prevalence of this magnetic storm.

The disturbances began about 2:30 o'clock this morning, but the very large disturbance did not occur until a little over four hours later. The disturbance was so great as to displace the magnets beyond the limits of the record sheets and to upset the adjustments of the instruments. The daily meteorological reports of weather conditions throughout this and foreign countries to the United States Weather Bureau were vitally affected by the crippled condition of telegraphic and cable service.

Officials of the United States Naval Observatory here were immensely interested in the conditions brought about by the aurora borealis, but said that the time service there was not in the least affected by the disturbance.

Cincinnati, Sept. 25.—Telegraph business in Cincinnati is seriously hampered by peculiar earth currents. The electric waves were felt first about 5:45 p.m. Friday, and at 8:30 a.m. to-day reached a maximum of 165 volts, so that they worked counter to the electric batteries of both the Western Union and Postal Telegraph companies.

At the Western Union offices the experiment was conducted of shutting off the batteries and working a single wire between Cincinnati and St. Louis by the power of this earth electricity. The plan worked all right as long as the earth current lasted steadily, but it was not feasible for general work, because the current was too unsteady.

Chicago, Sept. 25.—Violent electrical earth currents, believed to emanate from the aurora borealis, to-day disturbed the telegraph service over the entire country and for a time silenced the ticking of the Morse instruments in the offices of the great telegraph companies. While the drift of the currents, noticeable in New York from San Francisco and Seattle to New York, was apparently to the east, its strength was little more pronounced in one section of the country than in another.

The currents were first felt about 5 o'clock in the morning and increased in intensity for two hours, reaching the heaviest wave at 7:10 a.m., when all the telegraph activities were at a standstill. The force of the disturbing currents was so great that fuses were blown out and resistance lamps lighted up brilliantly.

Shortly after 7 o'clock the currents began to subside and intermittent service was resumed. The conditions at 9 o'clock were fast becoming normal.

Operators long in the business unhesitatingly ascribed the "dead" wires to the aurora borealis, and their opinion was reinforced by Weather Bureau experts. Professor David Cuthbertson declared the phenomenon was without question due to the aurora borealis, which, he said, always accompanied a high pressure in atmospheric conditions. No reports have been received to-day in the local weather bureau from north of Nebraska. The center of the magnetic storm, the Weather Bureau declares, is in Manitoba.

Fort Worth, Tex., Sept. 25.—Both the Western Union and Postal Telegraph companies to-day report all their wires over the state out of com-

mision for long periods, due to the effect of the aurora borealis.

Ogden, Utah, Sept. 25.—Unusual meteorological conditions prevailed in this part of Utah to-day. The weather suddenly changed from the frost conditions of fall to that of balmy spring. Telegraph wire chiefs attribute the earth current, illuminating the northern heavens with streams of white light.

BRITISH WIRE SYSTEM HAMPERED.

Underground Telegraph Suffers More than the Overhead.

London, Sept. 25.—The whole telegraphic system of the United Kingdom and all cable services are seriously affected by the magnetic storm experienced here soon after noon to-day. The underground wires suffered more than the overhead wires, the telephone system being little affected. The last occasion on which the wires were similarly put out of working order here was six years ago. The trouble is attributed by cable experts to the aurora borealis.

WORLD'S GOLD OUTPUT.

New Director of the Mint Expected to Report a Continued Increase.

[From The Tribune Bureau.]
Washington, Sept. 25.—One of the first duties incumbent on the new Director of the Mint, Professor Andrew, of Harvard, will be the issue of the annual statement on the world's production of gold during the last year.

It is expected that the report this fall will show continued increase in the world's production as well as in the production of silver. This increase will not be due, however, to the American mines, for it is believed by experts here that the production in the United States as well as in Alaska will show a decrease.

In 1907 the world's production amounted to \$400,000,000. This was an increase of \$300,000,000 beyond the preceding year. For 1908 there will probably be an equally large increase. The enormous development in the South African fields will account for the greater portion of this increase, due mainly to the vigorous exploitation of South African mining properties. On the other hand, Australia is declining in the amount of gold output. Mexico is showing a tendency toward increased production, and the forthcoming figures will show an appreciable advance.

But the part of the world to which experts are looking for heavy production in the future is Central America and South America, while the Siberian field is also thought to offer vast possibilities. Unless the Nevada fields, which have not yet made returns, come forward with unexpectedly heavy productions, the United States will be shown to have decreased its output in the forthcoming figures. Alaska is not holding its own, while the California and Colorado gold fields are also decreasing their production. The production for the United States in 1907 amounted to \$90,000,000, was a decrease of about \$4,000,000 from the preceding year.

This decrease was the first half of any important in the remarkable growth of the annual yield of the United States since 1883. The decrease was due at that time to the falling off in the yields of Alaska, California, Colorado, Montana and South Dakota, and the indications are that the year 1908 will prove somewhat similar.

The declines shown in the various fields of this country in 1907 were in part made up by an increase of about \$5,000,000 in Nevada. It is not expected that these conditions will be repeated this year, and a larger decline is looked for in this country, the Nome field, in Alaska, alone showing a decline of more than \$1,000,000.

FOUND FOSSIL SEA BEACH.

It Is in the Canadian Rockies and Forms a Bed of White Quartz Pebble 300 Feet in Thickness.

Washington, Sept. 25.—The base of the great Canadian system in a fossil sea beach was recently found by Secretary Charles D. Walcott of the Smithsonian Institution during a trip in the higher Canadian Rockies near the main line of the Canadian Pacific Railroad.

This fossil beach now forms a bed of white quartz pebbles conglomerate three hundred feet in thickness. Below this four thousand feet of limestone of an older period was Cambrian limestone, and twelve thousand feet of Cambrian limestone, sandstone and shale, in which were found many fossils. A large collection of these rocks and fossils has been sent to the United States Museum.

NATIONAL TRUST COMPANY INQUIRY.

Washington, Sept. 25.—Inspection of the books and papers of the National Trust Company of Washington, confiscated on Tuesday, when Henry M. Lewis, secretary-treasurer of the company, was arrested charged with unlawful use of the mails, has been made by District Attorney Baker and Carter B. Keene, chief postoffice inspector for the Washington district. The records disclosed, it is said, that Lewis within the last year has obtained more than \$40,000 in commissions.

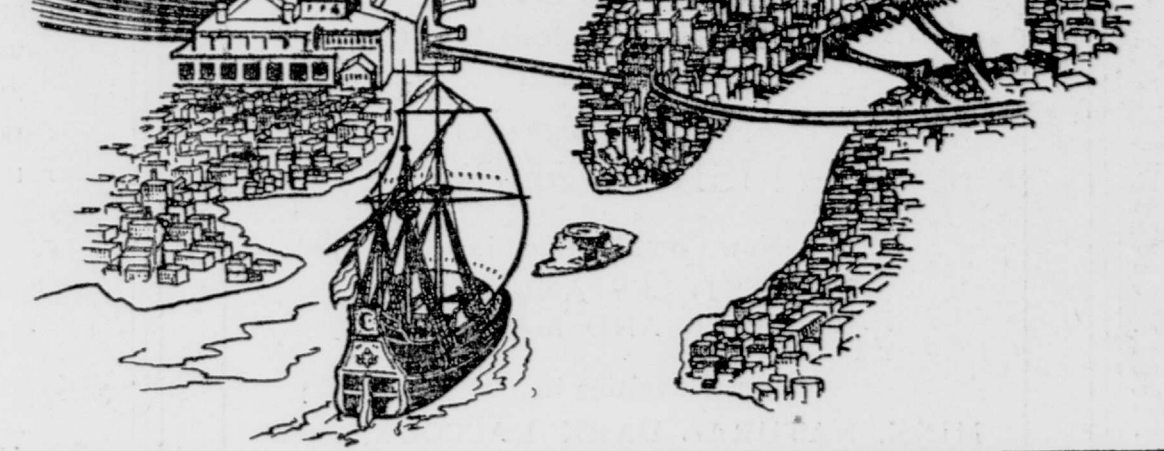
Both the District Attorney's office and the postoffice inspector say they have failed to find any of the assets of the company. It was the intention of District Attorney Baker to have a receiver appointed for the company if it had been learned where the funds were deposited.

ITALY GRATEFUL FOR U. S. AID.

Washington, Sept. 25.—In acknowledgment of the generous action of the American Congress and nation in coming to the prompt assistance of the Messina earthquake sufferers, the government of Italy, through its Ambassador in Washington, has decided to present to the Library of Congress a copy of each engraving mentioned in "The Catalogue of the Best Prints and Engravings Existing in the Royal Copper Plate Collection." This collection is said to be one of the finest of its kind in the world. The State Department has informed the Ambassador that the United States sincerely appreciates this courteous action of the Italian government.

Lackawanna Railroad

SHORTEST LINE
TO BUFFALO



When Hudson sailed into New York harbor he was seeking the "Northwest Passage" The Shortest Way to the West

If up the Bay
He came to-day
And asked to learn
"The Shortest Way"
Each wise polite
Manhattanite
Would answer
"Road of Anthracite"

TRAINING OF FARMERS PROGRESS IN AMERICA.

Great Results of Educational Work in Last Few Years.

[From The Tribune Bureau.]

Washington, Sept. 25.—Dick J. Crosby, specialist in agricultural education in the Department of Agriculture, has just concluded his study of the advance of agricultural education in the United States in the last eleven years. He is convinced that no nation has ever made such progress, and in a report to the Secretary of Agriculture, he says: "The progress made in agricultural education in the United States during the last eleven years as a result of popular demand, stimulated by the work of the state agricultural colleges and experiment stations and of this department, is unprecedented in the history of the world. In 1897, when the present administration of this department began, all but one of the land grant colleges were in running order and doing excellent work, but their total income was only \$5,000,000; to-day it is \$18,000,000. The property of these institutions was then valued at \$51,000,000; now it is \$106,000,000. Then there were less than four thousand students in agricultural courses; now there are over fourteen thousand. Ninety of the graduates of these courses in 1907 occupied positions in the agricultural colleges and experiment stations, or in this department, at salaries ranging from \$500 to \$1,700, and averaging \$948.66. It is stated by presidents of the agricultural and mechanical colleges that of late the graduates of agricultural courses find remunerative employment much more readily than the graduates from engineering courses.

"But the most rapid progress has been made in the field of secondary and elementary education in agriculture. In 1897 Minnesota had the only state agricultural high school, and Alabama had just made provision for the last of its nine district agricultural schools. The teaching of agriculture in the public elementary schools was scarcely thought of. To-day there are fifteen agricultural high schools of the Minnesota type and forty other agricultural high schools receiving state aid, sixteen privately endowed colleges and high schools giving instruction in agriculture, 115 state and county normal schools preparing young people to teach agriculture, and, on our lists, over two hundred and fifty public and private high schools and academies giving some instruction in agriculture. There are sixteen institutions offering correspondence and reading courses in agriculture, and twenty-six private or special elementary agricultural schools.

"The National Education Association has organized a department of rural and agricultural education, and has a standing committee investigating the desirability and feasibility of teaching agriculture in rural schools. The constitution of the new State of Oklahoma requires the teaching of agriculture in all its public schools, and the Legislature of the state has provided for four state normal schools, with departments of agriculture, and an agricultural high school in each judicial district of the state. The Legislature of Virginia has appropriated \$20,000 for instruction in agriculture, home economics and mechanics in ten district agricultural high schools, and Michigan and Mississippi have made provisions for county agricultural high schools.

"In thirteen states the teaching of agriculture in the rural schools is now required by law. It is encouraged by state and county school officers, and taught in some of the rural schools of thirty-one other states and territories. Forty-four states and territories, in response to the stimulus given by the Nelson amendment allowing the land grant colleges to devote a part of their increased federal aid to the special preparation of instructors for teaching the elements of agriculture and the mechanics arts," about half of these institutions now offer training courses for teachers of agriculture, ranging from summer courses of a few weeks to regular four-year courses, with additional graduate work.

"This department has aided materially in promoting the rapid development of agricultural education in the different states and territories. In this work the department has been represented primarily by the office of experiment stations, but all of the other bureaus and divisions have aided in the work through their investigations and through active co-operation with the educational agencies in the different states and territories.

"The Weather Bureau has been endeavoring to aid in radicalizing the superstitions everywhere prevailing with regard to the weather, and with this object in view encourages its officials to give popular lectures, and when practicable to offer systematic courses of instruction. During the last year numerous courses for the benefit of high schools have been given, and regular courses of instruction at agricultural colleges and other collegiate institutions have been offered in California, Connecticut, Illinois, Maryland, Missouri, New York, North Carolina, Ohio, Vermont, Washington and Wisconsin.

Popular instruction has also been given at extensions by means of lectures and lectures, and the Department of Education of the State of New York has introduced as a part of its "visual education" scheme a popular lecture on meteorology prepared by J. R. Weeks, of Binghamton, N. Y. This lecture, with the accompanying slides, is loaned for repetition before any school or academy. The Weather Bureau has also given attention during the year to the improvement of the literature of meteorology for special technical articles, through the translation of special technical articles on the mechanics of the atmosphere, the revision of the Smithsonian meteorological tables, the amplification of the handbook of laboratory experiments, and the supplementing of a collection of problems for advanced students of the physics of the atmosphere published in "The Monthly Weather Review" for December, 1906.

COURSE IN CHURCH MUSIC AT COLUMBIA.

A course in church music on the organ, in choir training and management, leading to the certificate as organist and choirmaster, will be given this year at Columbia University. It will be in the extension course, at Teachers College, and will be under the direction of Dr. Cornelius Rüchler.

Greenhut and Company

Dry Goods

Delicious Ice-Cold Tea

Served in our Lounging and Rest Room on the Third Floor. No charge. Visitors to New York are welcome, as well as regular patrons.

Arrived Yesterday—A New Lot of Women's Pure Silk Hose at 85c Pair

A price which is lower than today's importers' cost.

Colors lavender, cardinal, yellow, navy, green, burgundy and gray; also black and white.

Some have lisle soles, others are entirely silk. The quality is very smooth and fine. This lot will disappear very quickly 85c tomorrow. Special at Main Floor—Greenhut and Company.

Women's Fall Footwear—The Shoemaker's Very Best Work \$5 and \$6

When you pay these prices at Greenhut's you get the best footwear that's made. When the price is higher it is only because somebody wants larger profits than we do. The leather, style and making cannot be better. All the fine points of beauty and finish are apparent in our \$5 and \$6 shoes.

There are some decidedly new ideas for Fall and Winter and they are here. New models and lasts with graceful lines. Well arched in the instep, medium low vamp and high Cuban heels. One or two styles are worthy of particular attention.

The dull oxide and patent leather, with top of black cloth or kid, are especially new and smart.

Also our Princess Boot of patent leather, with top of dull kid and finished with a PATENT LEATHER COLLAR.

All black Castor high top boots, either medium or low vamp, tipped or plain toes. We mention these styles as the most desirable ones for this season's wear.

Also Women's Walking and Dress Shoes at \$3.50—a large department well stocked with the better kinds of \$3.50 footwear.

Evening Slippers—a new display of satin and all leathers—handsome jetted effects, bows, buckles, jetted or cut steel ornaments.

The most complete variety and the best values in the city at prices. \$3 to \$6 Second Floor—Greenhut and Company.

Another Great Purchase of ORIENTAL RUGS

will be on sale tomorrow at very much lower than usual prices. Beautiful specimens, in all sizes, from Persia, Turkey and India.

Third Floor—Greenhut and Company.

6th Avenue, 18th to 19th Street Store formerly occupied by H. Altman & Co.

LOWER FOOD EXPORTS

Decreases Due to Increased Home Consumption.

[From The Tribune Bureau.]

Washington, Sept. 25.—Recent discussions regarding the apparent decline in the exportation of foodstuffs from the United States and the increasing share of its foodstuffs required by its own population led interest to a statement just prepared by the Bureau of Statistics of the Department of Commerce and Labor, showing the share of the wheat and corn crops exported and retained for home consumption, respectively, and the quantity of meats and food animals exported during a term of years, the record having been brought down to the end of the fiscal year 1908.

These figures of the Bureau of Statistics make it apparent that the exportation of the wheat and corn crops of the United States has been materially less since 1903 than at any time during the twenty years immediately preceding that date. In the twenty-year period from 1883 to 1903 the share of the wheat crop exported ranged from 40 per cent downward, on only two occasions falling below 20 per cent. In 1904, however, the share of the wheat crop exported was only 19 per cent; in 1906, 8 per cent; in 1906, 14 per cent; in 1907, 20 per cent, and in 1908, 17 per cent, these figures showing in each case the percentage which the exports of the fiscal year bore to the crop of the calendar year immediately preceding. The figures of 1909 show 14,000 bushels of wheat, including flour in terms of wheat, exported in the fiscal year (ended June 30), and this exportation in the twelve months ended June 30 is compared with the crop of the calendar year 1908. As to the production itself, the figures utilized by the bureau (those of the Department of Agriculture) indicate that there is no material decline in quantity produced, but that the decrease in exportation is apparently due to the fact that consumption is growing more rapidly than production. The crop of 1908 is given at 685,000,000 bushels, and has been exceeded on only five occasions in the history of the country, while the exportation in the fiscal year following the production of this 685,000,000 bushels was only 114,000,000 bushels, a figure less than in any year from 1891 to the present time, with the exceptions of 1903 and 1906.

Corn exportations also show a like falling off and a like reduction in the share which they form of the total crop. The percentage of the corn crop sent out of the country is always much less than that of wheat, the bulk of the enormous corn crop of the United States being transformed into meats before exportation. In 1908, 11.14 per cent of the corn crop was exported, and in 1909, 10.89 per cent; but, as a rule, the percentage exported falls much below these figures, having been, in the fiscal year

1906, 4.43 per cent; in 1907, 2.95 per cent; in 1908, 2.12 per cent, while in the fiscal year 1909 only 1.41 per cent of the crop of the calendar year 1908 was exported, although that crop amounted to 2,688,651,000 bushels, the quantity exported in the fiscal year 1909 being 27,655,000 bushels, including meal in terms of corn, or less than in any year since 1895 with the single exception of the fiscal year 1902, following the short crop of 1901.

Meat exportations also show a marked falling off when compared with their export record during the last decade. The exports of fresh beef, which in 1901 amounted to 352,000,000 pounds, and in 1908 to over 200,000,000 pounds, dropped to 123,000,000 in 1909; of salted or pickled beef, which in 1906 were 81,000,000 pounds and in 1908 47,000,000, showed only 44,500,000 in 1909; of canned beef, which in 1903 were 76,000,000 pounds and in 1908 23,000,000, amounted to only 15,000,000 pounds in 1909. Fallow exportations fell from 128,000,000 pounds in 1907 to 53,000,000 in 1909, from 52,000,000 pounds in 1909 and 361,000,000 in 1908 to 245,000,000 in 1909; exportations of hams show only a slight decrease, being in 1909 212,000,000 pounds, against 227,000,000 in 1902, the highest record of the decade. Exports of pork, salted or pickled, dropped from 150,000,000 pounds in 1908 to 52,000,000 in 1909; of lard, from 742,000,000 pounds in 1907 to 53,000,000 in 1909, from 212,000,000 in 1906 and 603,000,000 in 1908 to 229,000,000 pounds in 1909; of oleo oil, from 212,000,000 in 1907 to 180,000,000 in 1909, while the total value of all meat and dairy products exported fell from \$211,000,000 in 1906 and \$202,000,000 in 1907, to \$167,000,000 in 1909, despite the higher prices which prevailed in the latter year.

The number of cattle exported, which totaled 593,000 in 1904, 584,000 in 1906, and 349,000 in 1908, was in 1909 only 208,000, or less than half the annual average during the five-year period immediately preceding.

In scarcely any of the important articles of foodstuffs are the figures of export values as high in 1909 as in immediately preceding years, although the prices a unit of quantity are, in most cases, higher in 1909 than in earlier years. The value of corn exports in 1909 was only \$25,000,000, against \$34,000,000 in the immediately preceding year; of wheat, \$68,000,000, against \$100,000,000 in the immediately preceding year; of flour, \$51,000,000 in 1909, against \$64,000,000 in 1908; of cattle, \$13,000,000 in 1909, against \$29,000,000 in 1908, and in nearly all articles of meats and in the total of meat and dairy products the figures of 1909 are, as already indicated, below those of the immediately preceding year or of the annual average of a brief term of years immediately preceding. The total value of all foodstuffs (including food animals) exported in the fiscal year 1909 was only \$438,000,000, against \$521,000,000 in 1908, \$532,000,000 in 1901, and \$590,000,000 in 1898.

FATAL COLLISION AT NORWICH, N. Y.

[By Telegram to The Tribune.]
Norwich, N. Y., Sept. 25.—Thinking to escape a

Some Face Defects Dr. Pratt Corrects THE TIME HE TAKES AND WHAT IT COSTS

Note the difference slight imperfections make in a face.



Don't Interfere with Your Going Around. Slower Methods and Home Treatments from \$100 Per Month.

Dr. Pratt, 1122 Broadway, N. Y.

Don't Fail to Consult Dr. Pratt Personally While He Is Here.

fast train approaching on the main track, Dr. Pratt stepped between a locomotive and a car standing on a sidetrack in the Ontario & Western yards here this afternoon. An instant later the train dashed into an open cut and crashed into the engine behind which Dr. Pratt was standing. He was crushed to death. E. G. Owen, Sidney, a passenger on the fast train, was probably fatally cut by flying glass. No one else was injured.

INSURANCE AGAINST UNEMPLOYMENT

Strenuous Effort To Be Made in England to Pass Socialistic Measure.

Washington, Sept. 25.—Insurance against unemployment is, according to Consul General Griffiths, at London, exciting a great deal of attention in England. The passage of some law governing such insurance is being discussed at every point of view. Whether or not the effort to make this insurance compulsory by parliamentary enactment is still a matter of doubt but it is made into the engine behind which Dr. Pratt was standing. He was crushed to death. E. G. Owen, Sidney, a passenger on the fast train, was probably fatally cut by flying glass. No one else was injured.