Exploration of the Air

Recent Experiments in the Science of Navigation Above the Earth

Abridged From Article By Prince Kropotkin in Nineteenth Century.

The exploration of the higher layers of the atmosphere by the aid of high-level observatories, kites, and balloons continues to engross the attention of meteorologists. This is not a mere fashion—science has its fashions—but an urgent need. To gain knowledge of what is going on in the air, miles above the earth's surface, has become a matter of necessity. Those who issue the weather forecasts see that they can make no further progress so long as they do not extend their observations higher up in the air envelope of our globe; and those who work upon the theory of the general circulation of the atmosphere come to the same conclusion. Our instruments carefully record the displacements of cold and warm air close to the earth's surface; but it is only at much greater heights that we find the mighty air-currents blowing undisturbed round the earth, and discover the origin of the great 'heat waves' and waves of cold weather. Thereto we must go to study them. Glaisher had fully understood this necessity when he undertook his venturesome balloon ascents; but while interest in such explorations died away in Britain, it was born with a new vigour in the United States, in France, in Germany, in Austria, in Russia, and the work is now carried on with a remarkable zeal.

The idea was, first, to build meteorological observatories on the tops of isolated peaks. The Sonnblick observatory which won a world reputation for its work, the Ben Nevis in Scotland, Jansen's Mont Blanc observatory, Abbas-tuman in the Caucasus, Arequipa in Peru, and so on, were the fruit of that effort—the highest observatory in the world having been planted by the Americans on the El Misti peak, at an altitude of 19,200 feet.

These institutions have already rendered good service to science. However they necessarily remain but few in number; they do not reach the uppermost levels of the atmosphere, and moreover the air-currents which are observed on more or less isolated peaks still remain complicated by the proximity of the plains and the mountains. Consequently, the United States meteorologists, keeping in view their practical aim—the prediction of weather—came to the conclusion that a survey of the temperatures, pressures, and air-currents which prevail at a height of, let us say, one mile above the surface of the soil, ought to be made regularly every day over the whole of the American continent. Seventeen spots were selected for that purpose, and the idea of Willis Moore—the promoter of the scheme—was that every morning kites provided with self-registering instruments would be flown at each of these spots, so as to bring down regular reports of temperature, pressure, and so on from the one-mile level above the soil.

The problem was evidently by no means an easy one. A small kite would not lift the instrument box when the wind was not strong enough, while a big kite was liable to break off its moorings when it met a stronger wind at a higher level, and thus to be lost for ever. Finally, the American meteorologists settled upon the Hargrave type of kite, which has the shape of a quadrangular box of which the lid and the bottom have been removed, or rather of a tandem composed of two such boxes. Thousands of such kities of miniature dimensions are now flown by old and young at all watering places. The meteorological kite is of course much bigger than the toy. It has eighty to ninety square feet of lifting surface (slightly concave) and it is held by a steel piano wire. A spring bridle, a machine for winding up miles of wire when the kite is brought down, and a meteorograph—that is, an instrument weighing a trifle over two pounds, but containing self-registering instruments for taking note of temperature, pressure, moisture and force of the wind—complete the equipment. The length of the wire which is paid out and the angle of its inclination give the exact height reached by the kite.

The kite became in this way a powerful aid to meteorology. Gradually perfected, it extended its excursions higher and higher in the air, and while the first kites hardly reached an altitude of 2,070 feet, they now rise beyond 12,000 feet, and thus penetrate into regions of which the normal temperature is near Fahrenheit zero. Altogether, the kite offers many advantages. The height it has reached being measured directly, a control of barometric measurements is obtained. Its ascension can be slackened at will so as to be sure that the instruments have taken the temperature of their surroundinigs, and it may be kept any length of time at a given height so as to represent a real floating observatory. But it has also its disadvantages. Thus the scheme of Willis Moore could only partially be realised, as there are many days (54 per cent. on the average) when the kites cannot be flown either for lack of wind or on account of too much wind. With all that, the kites were doing good work, when the Cuban war, which put the meteorological service to a hard, practical test, and the subsequent necessity of extending the meteorological net over the West Indies, put an end to the regular kite-explorations.

Most valuable data, especially as regards the laws of decrease of temperature in the higher strata of air, were obtained during the 1,217 kite ascensions which had been made in the meantime. It was also found that the kite observations would often warn the meteorologist about the coming changes of weather; a 'hot wave' was actually caught while it was coming. As to the clouds, their coming down at nights and their floating higher in daytime were registered with perfect accuracy by the instruments attached to the kites. Most interesting observations relative to the circulation of air in areas of low and high pressure were also made in this way.

While the United States made thus a speciality of kites, France took chiefly to unmanned balloons, or ballons sondes. The very first experiments proved to be most encouraging, when an unmanned balloon launched from Paris by Hermite rose to a height of 45,000 feet its self-recording instruments working perfectly to an altitude of 36,000 feet, while Assman's unmanned balloon, launched from Berlin, crossed over in ten hours to the Servian frontier, and brought full records of its journey. It rose to about 46,500 feet, where the barometric pressure was only 3 3-10 inches—thus showing that eight-ninths of the whole atmospheric air lay below the balloon. In both cases the temperature at the 36,000 foot level was found to be much lower than it was expected; namely, as low as 60 degrees below the Fahrenheit zero (—51 degrees and —52 degrees Celsius respectively). Eight balloons out of ten came down to the earth in perfect order. Consequently, beginning in the spring of 1898, Teisserenc de Bort, at Trappes, near Paris, has regularly launched his ballons sondes, several each month, so that he could report in 1900, and tabulate the results of no fewer than 240 ascensions. A sort of nearly permanent floating observatory was thus established. One-half of the balloons reached the 27,000-foot level, one quarter rose to 39,000 feet, and several went beyond the altitude of 42,000 feet (eight miles). Very few were lost. An inscription in different languages asking those who find the balloon to take care of it and to warn the nearest observatory, promising a reward of a few pounds for that trouble, is quite sufficient—even in Russia—to secure the safety of the messenger which decends from the skies. An excess of zeal is all that is to be feared—the good people who took care of one of the early balloons of Violle going even through the trouble of well polishing a smoked cylinder upon which the records of the meteorgraph were scratched by a needle, thus wiping off both 'the dirt' and the records.

At the same time the system of exploration of the atmosphere by means of manned balloons was worked out, especially in Germany, and partly also in Russia, where one of the members of the military balloon staff, Pomortseff, published in 1891 the results of his forty ascensions, and fully confirmed Hann's conclusions as regards the distribution of temperature in areas of low and high pressure. However, isolated observations even when they are numerous, are not sufficient, and at the international aeronautic conferences of 1896 and 1898 it was agreed between Austrian, Bavarian, Belgian, French, German, and Russian aeronauts that international ascents at the beginning of each month would be organized. Manned and unmanned balloons, as also captive balloon-kites, consequently start in considerable numbers on given days from Paris, Brussels, Strasburg, Munich, Berlin, Vienna and St. Petersburg—all provided with identical or similar instruments, approved by the conferences. In this international exploration Germany stands foremost with her manned balloons, the difficulty of breathing in the extremely rarified air of the great altitudes having been overcome by taking a supply of oxygen. In this way Dr. Berson could reach at Berlin an altitude of 9,155 metres (30,030 feet), and so long as his supply of oxygen lasted he experienced none of the symptoms of "mountain disease." No man had been before at such a height, but even this record was beaten on the 1st August last by Berson and Suring, who reached the altitude of 10,300 metres (33,700 feet), finding there a temperature of—40 degrees Fahrenheit. As to the unmanned balloons, they have explored of course still greater heights, the capricious Berlin ballon sonde 'Cirrhus' rose as high as 53,500 and 60,600 feet, while one of Teisserenc de Bort's unmanned balloons went to a height of 22 kilometres, i.e., about 13½ miles.

The results obtained from all these explorations of the last twelve years, are already full of importance. Everyone knows that the temperature of the air decreases as we rise higher and higher in the atmosphere, and that the summits of our high mountains lie amidst layers of air so cool that the snow does not disappear from them. There may be occasionally a local inversion of temperatures—that is, in certain localities, under certain conditions, especially under a cloudy sky, the temperature may increase up to a certain height; but as a rule it decreases as we rise above the soil at a rate of from three to five Fahrenheit degrees for each thousand feet. Consequently, even in summer we find in middle Europe the temperature of freezing at a height of from 6,600 to 10,000 feet, and a still greater cold prevails at still greater heights.

However, it was never expected by meteorologists that the upper layers of the atmosphere would be so cold as they are in reality. It appears now that all the observations of Glaisher, upon which our knowledge of the upper layers was chiefly based, gave too high temperatures. Not only because a thermometer, unless it is very sensitive and the air round it well ventilated, takes some time before it shows the real temperature of the layer of air which the balloon is piercing, but especially because of the solar radiation, which, in the high layers of a rarefied atmosphere and in the full sunshine which reigns above the clouds, is very strong, and overheats the instruments. This was one of the first difficulties which the meteorologists had to overcome before such perfected instruments as Assmann's psychrometer and the instruments of Violle and Tiesserenc de Bort's were introduced. Thus it appears now that the average temperature at an altitude of 20,000 feet is 13 degrees below the Fahrenheit zero (as against Glaisher's 3 degrees to 32 degrees Fahrenheit), and that at the altitude of 25,000 feet the air is full 35 degrees below the Fahrenheit zero, instead of the 4 degrees below to 16 degrees above Fahrenheit which Glaisher gave for that altitude. Such low temperatures prevail it must be remarked all the year round.

Another important fact was revealed by these explorations. It was generally believed that the decrease of temperature becomes slower and slower in the higher portions of the atmosphere. It appears, however, that at great altitudes it is the reverse which prevails. The ratio of decrease, which in the lower strata, grows higher and higher, reaching nearly twice as much at the highest levels. This upsets many a current theory.

It would be impossible to analyse here the extremely interesting deductions which Cleveland Abbe makes from the explorations of Teisserence de Bort, or those which Bezold draws from the German balloon explorations; still less would it be possible to mention the mass of information contained in the luxuriously edited Wissenschaftliche Luftfarten. Two points, however, deserve a special mention. One is the quite unexpected discovery that the difference between summer and winter is felt even at such great altitudes as 30,000 feet. Of course, the seasons are not so well pronounced there as they are with us; but even at this great height they are fully noticeable—the average temperature of the 30,000-foot layer in March being about 65 degrees below the Fahrenheit zero, while that of August (the warmest month) is only 44 degrees below. Higher up the layers of extremely thin rarefied air are even much cooler than that, and rapidly merge into the frozen depths of the interplanetary space.

Another extremely interesting fact is this. Everyone knows the spell of cold weather which we experience in Europe and Northern Asia about the middle or in the first half of May—the so-called Saints de glace of the French peasants. This 'cold wave' has long since been a puzzle for meteorologists. It is so widely spread that some cosmic cause—not telluric—was suspected; but then, the retardation with which the cold reaches Siberia, whereto it comes about the 20th or 22nd of May, was an argument against the cosmic origin of the cold wave. If it were due to the earth entering an especially cold portion of the solar system, no such retardation would take place. Consequently an international balloon ascent was organized on the 13th day of May, 1897, balloons starting on that day from Strasburg, Berlin and St. Petersburg. These ascents proved that the cold wave surely is not due to some small local disturbance, such as icebergs and the like. It is caused by a mass of air, 30,000 feet thick, and covering all Europe, which is brought into a rotatory motion, so that cold air from the north is brought down upon Western Europe, while warm air is poured upon Eastern Europe from the southwest. What is the cause of that regularly recurring rotation of the atmosphere we do not know yet, but the amount of energy it represents is immense, and its cause must be consequently more general than mere local disturbances.

Altogether when one rises in a balloon far above the petty asperities of the earth's surface, one finds also a much simpler distribution of temperatures, pressures, and air-currents; and it will be through such data as those which were collected during an international ascent on the 3rd or October, 1899, that knowledge will be won about the cyclonic and anti-cyclonic disturbances to which our weather is due.

JOSHUA DAVIES

AUCTIONEER

Tuesday, October 29, 1901

AT 11 O'CLOCK A. M.

Under instructions from Messrs.

TURNER, BEETON & CO.

I will sell on their wharf for account of whom it may concern,

In Bond To Close Consignments

PORT

C. S. & Co., 30 20-Gallon Kegs, 35 10-Gallon Kegs.
L. D., three Quarter Casks, 4 Octaves., 35½ Octaves.

SHERRY

C. S. & Co., 14 20-Gallon Kegs, 22 10-Gallon Kegs.
L. D., 2 Quarter Casks, 4 Octaves.

CLARET.

29 Hhds Claret.

CHAMPAGNE.

14 Cases Quarts Champagne.

DOULTON'S WARE

2 6-foot Enameled Earthenware Baths; 1 5-foot 6-inches Enameled Earthenware Baths; 2 Closets complete, 11SH; 1 Closet, No. 70, white cabinet; 3 Closets; 1 Green Tile Fire Grate; 1 Brown Tile Fire Grate; 4 Green Tile Fire Grates; 70 lengths 9-inch Pipe; 1974 lengths 3-inch V. G. Pipe; 164 lengths 6x6 T's; 107 lengths 6x6 Y's; 172 lengths 6-inch Bends; 169 lengths 4-inch Bends; 18 lengths 4-inch T's; 24 lengths 4-inch Syphon Traps; 30 lengths 3-inch bends; 75 lengths 3-inch T's; 67 lengths 3-inch Y's; 93 lengths 3-inch Syphon Traps; 15 Gully and Grids Pig. 13; 15 Reducers from 6 to 4 inches; 2 Automatic Syphons; 1 3-Corner Sink.

1 Lot Damaged Pipes

Palm Tubs

8 Japanese Palm Tubs

TERMS AT SALE.

JOSHUA DAVIES,
Auctioneer.

CURSE OF INSANITY.

Dr. Bruce Smith on the Causes Which Spread it.

From Mail and Empire.

A remarkably able and interesting paper by Dr. W. R. Bruce Smith, assistant superintendent of the Asylum for the Insane at Brockville, which appeared some time ago in the Canadian Journal of Medicine and Surgery, has called attention to the subject of "mental sanitation." Dr. Smith has made a profound study of the subject in specially favorable circumstances, and the facts and arguments which he puts forth, and the results to which he points are well worthy of consideration. His paper was evidently intended for members of the medical profession, and is rather too technical for popular reading, but the matter of it is such as concerns every class in the community. The fact that insanity is increasing, and that, even in this country, its increase is out of proportion to the increase of the population is a matter of by far too serious import to be regarded with indifference by any lover of his country or his race. If any practical benefit is to be derived from the ascertainment of this appalling fact we must have as thorough a knowledge as may be of the nature of this mental disorder, and the causes which contribute to its spread. As Dr. Smith very truly says: "A thorough apprehension of the disease, its etiology, development, and pathology is the only foundation upon which an intelligent prophylaxis can be based."

Following this line of thought, it is important that it be ever kept in mind that the basis of what we call mental disease is physical, and that whatever contributes to soundness of body, in the most comprehensive sense of that phrase, contributes, ipso facto, to soundness of mind. On the other hand, whatever tends to physical weakness, especially to the poisoning of the blood and the weakening of the brain, tends at the same time to weaken and destroy the balance of the mind. To quote from Dr. Smith again: "Mental symptoms only show one of the many effects of the disease called insanity. They do not themselves indicate the entire pathology." Another momentous fact that Dr. Smith brings out is well worthy of being remembered, "In a large number of cases the insanity is only the expression and outcome of conditions and causes which have been in existence for years, and have been slowly but surely bringing about such weakness of the brain, such deterioration in structure, and impairment of recuperative power, that entirely healthy mentality is no longer possible." In such cases the mental infirmity of riper years may be the inconsiderate youth. And in this fact there is a note of warning that ought not to be overlooked by the parents and guardians of youth.

It is true indeed, that a very large proportion of the insanity in the world is the result of congenital defects. Dr. Smith says: "Without doubt in 50 per cent. of all cases of developed insanity we find such evidence of ancestral defect or disease as would lead us to expect at some point in the line of descent a reappearance of this defect in the form of active disease of the mind." Dr. Smith quotes from an address by Dr. Blanchard, delivered before the British Medical Association, a passage founded on this view, which well deserves to be carefully pondered. Dr. Blanchard says: "I have long been of the opinion that insanity is to be prevented chiefly by limiting the propagation of this most fearful disease through the union of affected persons. I am convinced that the only way to really diminish and finally stamp out insanity is by educating public opinion, that those who have been insane or are threatened with insanity shall, in the face of such public opinion, abstain from bringing into the world children who must certainly contain in them the potentiality of insanity, who will some of them develop it, even if others escape, and so will hand on the heritage from generation to generation till the race dies out." This is a terrible responsibility, no doubt, and one from which every person in whom both the light of reason and conscience has not gone out should shrink; but there is one thing even more terrible than this, that is, for one who was born with no such congenital defect, by his own vices not only endangering his own sanity, but originating a train of evil influences which may curse some, it may be many, of his own progeny with the loss of reason.

LONG LIFE IS INHERITED.

This statement you can prove by investigation. When a person whose ancestors had long lives dies in middle age you can in nine cases out of ten trace the cause to disordered kidneys and consequent suffering from Bright's disease, rheumatism, fatty heart or dropsy. Dr. Chase's Kidney-Liver Pills prevent and cure these fatal and painful diseases as no other preparation was ever known to do. One pill a dose, 25 cents a box.

A CENSUS SERMON.

Toronto Clergyman Uses Strong Words in Addressing Ontario Women.

Toronto, Oct. 21.—In a sermon last evening in St. Luke's church, Rev. Dr. Langley said: "I am thinking of wholesale murders being perpetrated by wives who ought to be mothers, moving, many of them, in the highest ranks of society. Vital statistics leave no doubt that this crime is being committed on an enormous scale, and if not arrested will end in the destruction of the Anglo-Saxon race. You may depend upon it in families where there are no children, or where there are only one or two children, in nine cases out of ten there has been murder and mothers that ought to have been will be arraigned on the Judgment Day as murderers, and husbands in many cases as accomplices. Something must be done to stop this notorious iniquity, which is the outgrowth of what is called the educated age."

STEEL PROJECTILES.

Machinery For Manufacture Now at Quebec—Maxwell's Aim.

Ottawa, Oct. 21.—(Special.)—The Department of Militia has been advised that machinery for the manufacture of steel projectiles has arrived at Quebec, and will be placed in position immediately, and the government factory will at once commence to manufacture steel shells.

G. R. Maxwell, M. P., arrived here this afternoon. He is said to be after the vacant portfolio in the Dominion Cabinet.

ANDREW CARNEGIE.

Triumphant Democracy Aspires to the Title of Lord Rector.

London, Oct. 22.—Andrew Carnegie, replying to the unanimous request of the students, that he allow himself to be nominated to the lord rectorship of St. Andrew's university, in succession to Prof. James Stuart, whose term expires in November, has accepted the nomination.

ST. JOHN'S EXPECTANT.

Newfoundland Capital Looking Out for Royal Yacht.

St. John's, Nfld., Oct. 22.—The yacht Ophir and her consort are expected to arrive here tomorrow morning with the Duke and Duchess of Cornwall and York. Elaborate preparations have been made for the reception. More than 500 fishing vessels are here to take part in the festivities.

CHAPLAIN'S SUICIDE.

Rev. Henry Black of H. M. S. Charybdis Found Dead.

St. John's, Nfld., Oct. 20.—The body of Rev. Henry Black, for some time chaplain of the British cruiser Charybdis, who mysteriously disappeared from St. John's last Wednesday, was found this morning near St. John's, shot through the head. He had evidently committed suicide in consequence of dementia, attributed to the great excitement growing out of the arrangements for the visit of the Duke and Duchess of Cornwall and York.

LORD ROSSLYN.

Withdraws Action of Divorce Filed Last February.

Edinburgh, Oct. 22.—Lord Rosslyn today formally withdrew the action for divorce which he brought against the Countess in February last.

FILIPINO EXECUTIONS.

U. S. Military Authorities Are Hanging Many Murderers.

Washington, Oct. 22.—The records in 20 court-martials, wherein the charge was murder, have been received at the war department from the headquarters of the division of the Philippines. In the majority of the cases sentences of death by hanging were imposed and approved. All of them bore features of unusual barbarity and cruelty so marked as to warrant special mention. In one of them five natives, members of an armed band of outlaws, entered the home of a native named Ragudo, seized and bound his son, hanged him by a rope and tied his father and mother by their elbows to a rafter. They then demanded money of their captives, and the forthcoming amount not being deemed sufficient, they wrapped rags saturated with oil about their feet and legs and set their clothes afire. For two hours the torture continued, blows from the butts of rifles being rained on the helpless captives, while, to add to their sufferings, a young daughter was struck down by a blow from a bolo on her head. All five of the natives were sentenced to death.

CZOLGOSZ.

Execution Will Likely Take Place Monday or Tuesday Next.

Albany, N. Y., Oct. 21.—Warden Meade, of Auburn prison, spent several hours today in conference with Superintendent of Prisons Cornelius V. Collings arranging the details for carrying out the sentence of death imposed on Leon F. Czolgosz, the murderer of President McKinley. There will be but 26 witnesses admitted, the law limiting the number. The prison physician will be assisted in the conduct of the autopsy by Carl F. McDonald, M.D., one of the greatest experts on insanity in the country. There will also be a number of other physicians in attendance when the final mandate of the law is carried out. Because of the small attendance that can be had under the statute, there will be but a limited number representatives of the press present. Details for the execution have been practically completed, and while the prison authorities guard with great secrecy all facts, it is believed that the execution will take place before 6 o'clock on the morning of October 28, or if everything cannot be got ready on that day, at a similar hour on the 29th.

TORTURING SUSPECTS.

Horrible Cruelty Practised by Turks to Extort Information.

London, Oct. 23.—The Morning Leader publishes the following communication, dated Saturday, October 19, from Sofia: "On the frontier near Grossbelovo, yesterday, five fugitives from Baniska, Macedonia, among them a brother of Mme. Tsilka, Miss Stone's companion, were shot dead by Turkish frontier guards, while endeavoring to cross into Bulgarian territory.

"The United States Consul, Gen. Dickinson, believes that they were members of the American Mission church, has demanded an official inquiry. Great brutanity exists in the district between Buniska and the frontier. Turkish officials have arrested over 100 residents of Bulgarian nationality and subjected them to torture in order to wring from them information as to Miss Stone's whereabouts. Several of them have died under torture.

The Bulgarian authorities, likewise worried over the affair, are continually arresting fugitives from Macedonia, and this causes bad blood.

Mr. Dickinson thinks that if the original Macedonian promoters of the abduction of Miss Stone can be arrested, the brigands who acted under their orders would accept a smaller ransom. As the Bulgarian government is prepared to act vigorously, if sufficient proof is forthcoming, says the Vienna correspondent of the Times, this method of proceeding may prove successful.

Along the Waterfront

Hating Will Be Hauled Out For Repairs at Esquimalt Today.

Queen City Sails For Cape Scott And Other Coast Ports.

(From Wednesday's Colonist.)

The steamer Hating will be hauled out on the Esquimalt marine ways today, when it is expected that the repairs to the Amur—work on which was to have terminated some days ago, according to the contract—will be completed. The Amur will be made ready for service between Victoria and Skagway as soon as she is floated. When the repairs to the Hating are completed, and it is expected the work will occupy some weeks, she will be retired for the winter season, when both travel and movement of freight is light on the northern route. The repairs to the Hating will involve the placing of at least twenty, if not more, new plates in the hull of the steamer, and a number of frames have been broken or bent, necessitating new ones being made. A number of plates will also need straightening. As she lies at Esquimalt near the ways, the bow of the steamer shows the effects of the collision. It is badly crumpled near the waterline, and below there are more marks of contact with the rocks, which will keep the iron workers busy for some time, when the underwriters award the contract for repairs.

The steamer Horda is still in the dock, and when she comes out, the cruiser Phaeton, which came out to allow of her going in, will again enter the dry-dock, unless arrangements are made to have the steamer Crusader docked for cleaning and painting. The steamer Nell, which is being repaired on Turpel's ways, will be floated today, when the steam launch Mist will be hauled out. The Mist has been lying idle for many months past. The work of the Senator is expected to be completed shortly, and she will then sail for Liverpool.

The German steamer Maria, which has been anchored off the wharf for some days past, has been chartered to carry coal between Nanaimo and San Francisco. She sailed for the colliery early this morning. The ship Combermere, laden with over 70,000 cases of British Columbia salmon for Liverpool, will go to sea today in tow of the tug Lorne, leaving but one vessel on the Fraser receiving cargo, the ship Red Rock. The ships Santa and Ballachulish are both due to load salmon, the former from Honolulu, which port she left on October 6, and the latter from Santa Rosalia, whence she sailed 59 days ago. The ship Garsdale will come around to the outer wharf from Esquimalt, where she is now discharging her naval stores, tomorrow afternoon and she will commence discharging her general cargo of over a thousand tons on the following morning. Included in the cargo of the Garsdale is a shipment of about three hundred tons of steel rails, and there is a large quantity of cement. The ship Battle Abbey, which has loaded a lumber cargo at Vancouver, passed out yesterday to Port Townsend, where she will load her stores before sailing.

The next loaded ship due at this port will be the coal ship Greta, now 120 days out from Cardiff with coal for the navy. She is chartered to load salmon for her return voyage. The ship Deudraeth Castle, which sailed from Cardiff 10 days before her, with a coal cargo for this port, was delayed by having to put into Rio de Janiero with her cargo heated. She sailed again on August 23. She is not due for a month yet.

FOR CAPE SCOTT.

Steamer Queen City Sails for Points Along the Island Coast.

Steamer Queen City sailed for Cape Scott and way ports of the West coast at 11 last night, carrying a heavy cargo of general merchandise and supplies for miners, settlers and the natives of the coast, including everything from sacks of flour to sewing machines and spring mattresses. Among the passengers who went up on the steamer were R. H. Pidcock, for Winter harbor; Capt. John Irving, for Barkley sound; F. W. Ashwell and R. Hamilton, for Alberni; W. London, for Coal harbor; A. W. Donaldson, for Nootka; Mrs. Luckovitch, for Hesquiot; E. B. Christian, for Alberni; W. Dodds, for Cape Scott; A. Soule, for Clayoquot; Mrs. Mackenzie, for Alberni, and F. V. Hobbs and wife for Port Renfrew. There were a large number of Indians, whose heterogeneous collection of "ictas" had been piled about the wharf all day yesterday, for different coast points. They were returning from the hop fields across the Sound.

THE GARONNE CASE.

Capt. Alwen's License Suspended and Chief Engineer's Certificate Revoked.

Capt. John Alwen, master of the steamer Garonne, formerly of the steamer Tacoma of the N. P. line, will have unpleasant news when he returns from Nome with the Garonne. Capt. Alwen has had his license suspended for 90 days, and Duncan Cree, her chief engineer, suffers the revocation of his papers for bringing the vessel, which sailed September 20 for Nome, back to Seattle on the ground that it was unsafe owing to "leaky boilers and poor coal" to proceed on the voyage.

This decision was handed down by Capt. William J. Bryant, inspector of hulls, and Capt. C. C. Cherry, inspector of boilers, composing the board of United States marine inspectors for Washington.

At the time she put back, September 23, the Garonne, which is now returning from Nome, was about 100 miles off Cape Flattery. Upon her arrival more or less minor repair work was done, with the completion of which the vessel sailed a second time for Nome. Before the vessel set sail a second time, Frank Waterhouse, of the company owning and operating the Garonne, caused the removal of such of the engineer's crew as had not quit the ship voluntarily. With a new force of engineers and the same master the Garonne again set sail.

The engineers are blamed in the decision of the inspectors with causing the return of the vessel unnecessarily, and the master for heeding them and not commanding them to continue.

EMPRESS OFFICERS.

Changes That Are Contemplated in the Fleet.

A number of changes in the officers on the Empress of Japan are contemplated. Second Officer Davidson is about to leave to return to England, and his place will be filled by promotion. Second Engineer Caffrey, formerly of the Tartar, was transferred from the freight liner when she was last in Vancouver, and will take the same position on the Empress, while Mr. Rice, the fourth engineer of the Japan, will go to the Tartar. Dr. Stewart, the surgeon, is about to leave for Fort William, Ontario, and a new officer has arrived from England to take his place. Chief Purser Blythe is going to England. He is retiring from the service of the company, and it is rumored will be married when he reaches home. Mr. [illegible]

PRINCE EDWARD OF YORK.

And The Diamond Named After Him.

From the London Tatler.

The simplicity and good sense which have always held sway in the upbringing of Prince Edward of York, and his younger brother and sister, are being continued in the absence of their parents. This is seen in their dress and in the arrangement of the nurseries at Marlborough House and the other residences of the king and queen. When the royal children left London for the Isle of Wight with their grandparents, they were dressed just as any other children of a middle-class English household would be, the two elder boys in man-o'war suits and big straw sailor hats, the little Princess Victoria and her baby brother in white cotton frocks and sun hats with shady brims. As usual Prince Edward occupied the place of honor in the carriage in which he drove, his younger brother facing him with his back to the horses. The place is the object of not a little jealousy and struggle on the part of the younger prince, and amusing tales are told of the race and contest as to who shall reach the carriage first and secure the coveted place of honor, possession being, in the opinion of Prince Albert, nine, or even ten points of the law.

The fascinating history surounding the great gems famous in the world's history would now be incomplete without mention being made of the youngest, yet, perhaps most splendid jewel; that has for many decades commanded the attention and admiration of connoisseurs. In the same year, and very nearly on the same day, that the popular young potentate, Prince Edward of York was born, the great diamond that was named after him was discovered in South Africa. It has been headed in England for some time but in no way exploited, until recently, when Alfred H. Smith, of New York, bought the gem, which is worth twenty thousand pounds, in order to send to his New York house.

The diamond was named after 'Prince Eddy, with the full sanction of the Duke and Duchess of Cornwall, who themselves saw and admired the stone before they went away on their foreign travels. Beyond their Royal Highnesses, however, but few people have seen the wonderful jewel, which is unset and a thing of amazing beauty and dazzling brilliancy. It is a pure white African diamond absolutely flawless and cut in a pendant shape that makes its astounding size and splendor all the more apparent.

The 'Jeweler's Circular' of September 25, says: The beautiiful diamond mentioned, purchased some months ago, by Alfred H. Smith, arrived in New York a little over a fortnight ago, and since then has been at the office of the owners, 182 Broadway, New York. The stone is absolutely pure and without a flaw, is of astonishing fire and, is, perhaps the most perfect and brilliant diamond ever brought to this country. All who have seen it have declared that it is even a finer specimen than the first reports made it out to be, and it has been the object of universal wonder and admiration by members of the precious stone trade who have inspected it. The stone is pear shape and weighs sixty and one-quarter karats. It will probably be used as a lower pendant in a superb necklace of which every gem is of the first water. The reported value of the stone is over a hundred thousand dollars.

Pain from indigestion, dyspepsia, and too hearty eating, is relieved at once by taking one of Carter's Little Liver Pills immediately after dinner. Don't forget this.

RAILWAY WRECK.

Oregon Short Line Train Comes to Grief

Pocatello, Idaho, Oct. 22.—The Oregon Short Line, westbound fast mail No. 1, was wrecked four miles east of McCammon this afternoon. The engineer and fireman were killed. No passengers were injured.

CONVALESCENCE.

Convalescence is sometimes merely apparent, not real, and especially is this true after such diseases as pneumonia, typhoid fever and the grip. To make it real and rapid, there is no other tonic so highly recommended as Hood's Sarsaparilla.

This great medicine cleanses and renews the blood, strengthens all the organs and functions, and restores health. Take Hood's.

EMPRESS OF GERMANY.

Her Birthday Celebrated in Berlin and Address Presented.

Berlin, Oct. 22.—Today is the birthday of Empress Augusta Victoria, and flags were displayed on all public and many private buildings. There were no court festivities, owing to Her Majesty's indisposition, and to the fact that the imperial family is in mourning for the late Queen Victoria. A congratulatory address, beautifully bound and bearing 18,000 signatures, was presented by the citizens of Berlin, and many patriotic societies celebrated the anniversary.

Eruptions

Dry, moist, scaly tetter, all forms of eczema or salt rheum, pimples and other cutaneous eruptions proceed from humors, either inherited, or acquired through defective digestion and assimilation.

To treat these eruptions with drying medicines is dangerous.

The thing to do is to help the system discharge the humors, and strengthen it against their return.

Hood's Sarsaparilla permanently cured J. O. Hines, Franks, Ill., of eczema, from which he had suffered for some time; and Miss Alvina Wolter, Box 212, Algona, Wis., of pimples on her face and back and chafed skin on her body, by which she had been greatly troubled. There are more testimonials in favor of this great medicine than can be published.

Hood's Sarsaparilla

Promises to cure and keeps the promise. Don't put off treatment. Buy a bottle of Hood's today.

FIRST AID TO THE INJURED
POND'S EXTRACT

FOR BURNS, SPRAINS, WOUNDS, BRUISES OR ANY SORT OF PAIN.

Used Internally and Externally.

CAUTION! Avoid the weak watery Witch Hazel preparations, represented to be "the same as" Pond's Extract, which easily sour and often contain "wood alcohol" an irritant externally and, taken internally, a poison.

BORN.

OWEN—At No. 81 Kingston street, on the 16th inst., the wife of Capt. W. D. Owen, of a son.

DONNELLY—At Revelstoke, B. C., on October 13th, the wife of Hamilton Donnelly, of a son.

MARRIED.

WHEELER—LEPAGE—On Oct. 10th, 1901, at Skagway, Alaska, by Rev. Mr. Covington, Herbert Wheeler, of the British Yukon Navigation Co., White Horse, Y. T., to Ethel L. LePage, of Victoria, B. C.

Vancouver and Winnipeg papers please copy.

MACKAY — ALMOND—At Vancouver, on October 15th, Albert S. Mackay and Miss Ethel Mary Almond.

PATTERSON—TAIT—At New Westminster on Ootober 16th, Frank Patterson and Miss Mary Olive Tait.

DIED.

LOGAN—At Vancouver, on Oct. 21st, Annie McD. Logan,

Toronto papers please copy.

McDONALD—At Westminster on October 22, Alexander McDonald of Victoria, aged 65 years, a native of Hopeville, Nova Scotia.

CALBICK—At New Westminster, on October 14th, Mary M., relict of the late W. A. Calbick, Esq., aged 53 years.

CONDELL—At Tuleyvernon, Clogher, Tyrone, Ireland, on September 16th, Joseph Condell, father of T. H. Condell of Vancouver.

MASON—In this city on October 15th, Annie Eliza, widow of the late Henry Slye Mason, a native of Cornwall, Eng., aged 60.

RAYMER—At Kelowna, B. C., on October H. W. and Mary Raymer, aged 18 years 12th, Harry Adelbert, second son of

FLETCHER—At the family residence, 169 Pandora avenue, on the 18th instant, Martha Fletcher, wife of Thos. W. Fletcher, aged 45 years, a native of Glasgow, Scotland.

CAMERON—At the Royal Jubilee hospital, on the 14th instant, Colin Cameron, late of Mount Sicker mines, and a native of Sandringham, Ontario, aged 42 years.

MORRISON—At the family residence, No. 204 Superior street, on the 20th instant, Capt. Daniel Morrison, a native of Pictou, Nova Scotia, aged 61 years.

OATS FOR AFRICA.

Government Will Send Half a Million Bushels From Alberta.

Ottawa, Ont., Oct. 22.—The government has made arrangements to take a half million bushels of oats from Alberta growers for shipment to South Africa. Prof. Robertson leaves this week for Calgary to make arrangements.

ASTHMA CURED FREE!

Asthmalene Brings Instant Relief and Permanent Cure In All Cases.

SENT ABSOLUTELY FREE ON RECEIPT OF POSTAL.

Write Your Name and Address Plainly.

There is nothing like Asthmalene. It brings instant relief, even in the worst cases. It cures when all else fails.

The Rev. C. F. WELLS, of Villa Ridge, Ill., says: "Your trial bottle of Asthmalene received in good condition. I cannot tell you how thankful I feel for the good derived from it. I was a slave, chained with putrid sore throat and Asthma for ten years. I despaired of ever being cured. I saw your advertisement for the cure of this dreadful and tormenting disease, Asthma, and thought you had overspoken yourselves, but resolved to give it a trial. To my astonishment the trial acted like a charm. Send me a full-sized bottle."

REV. DR. MORRIS WECHSLER,
Rabbi of Cong. Bnai Israel.
New York, Jan. 3, 1901.

Drs. Taft Bros' Medicine Co.,

Gentlemen: Your Asthmalene is an excellent remedy for Asthma and Hay Fever, and its composition alleviates all troubles which combine with Asthma. Its success is astonishing and wonderful.

After having it carefully analyzed, we state that Asthmalene contains no opium, morphine, chloroform or ether. Very truly yours,

REV. DR. MORRIS WECHSLER.

Avon Springs, N. Y., Feb. 1, 1901.

Dr. Taft Bros. Medicine Co.,

Gentlemen: I write this testimonial from a sense of duty, having tested the wonderful effect of your Asthmalene, for the cure of Asthma. My wife has been afflicted with spasmodic asthma for the past 12 years. Having exhausted my own skill as well as many others, I chanced to see your sign upon your windows on 130th street, New York, I at once obtained a bottle of Asthmalene. My wife commenced taking it about the first of November. I very soon noticed a radical improvement. After using one bottle her Asthma has disappeared and she is entirely free from all symptoms. I feel that I can consistently recommend the medicine to all who are afflicted with this distressing disease. Yours respectfully,

O. D. PHELPS, M. D.

Dr. Taft Bros. Medicine Co. Feb. 5, 1901.

Gentlemen: I was troubled with Asthma for 22 years. I have tried numerous remedies, but they have all failed. I ran across your advertisement and started with a trial bottle. I found relief at once. I have since purchased your full-sized bottle, and I am ever grateful. I have family of four children