TINY YACHTS TO RACE.

THE INTERNATIONAL CONTEST FOR THE SEAWANHAKA TROPHY.

Uncle Sam Versus Canada—The Saucy Half Rater Threatens to Monopolize the Yachting World For a Long Time.

(Special to The Herald.)

NEW YORK, July 12.—In something less than an hour last year the members of the smart Seawanhaka-Corinthian Yacht club met and decided to offer an international trophy which would be to small yachts what the America's cup is to large yachts. There was a good deal of croaking done among the rest of the yachting world when the announcement was made, and it was freely predicted that the Seawanhaka club had laid the foundation of a dismal failure. Subsequent events, however, proved the croakers to be false prophets, for the small boat is bound to cut a big figure in yachting from now on.

Last year the trophy was challenged for as soon as it was offered by J. Arthur Brand, a son of the comptroller of London. He brought a fifteen-foot boat here, on the deck of an ocean liner, and a series of rattling good races were sailed, the American boat Ethelwynn proving the victor. The English boat was called the Spruce IV, and she will go down in history as the first challenger for the trophy.

Very little attention was paid to the battle between the small boats last year, as the interest of the public was centered in the contest between the Valkyrie and Defender for the America's cup, but as a matter of cold fact the real yachtsman found more to enthuse over in the race between the tiny craft than in the unfortunate races of the larger yachts.

This year there is no America's cup race and the little fellows will command all of the public attention. The challenger this year is a Canadian, G. H. Duggan, of the Royal St. Lawrence Yacht club, of Montreal, and he has promised to surprise the "yachting folks of the states" with his boat.

Twenty-seven defenders of the cup were built by enthusiastic Americans, and the best of them, El Heirie, has been chosen to meet the foreigner. El Heirie is Arabic for "swift camel." Her owner is C. H. Crane, a young man of 23 years, who not only sails his boat, but designed her. Among the yachts which competed for the honor of meeting the Canadian craft were designs by Herreshoff, Rigby, Tom Chapman, William P. Stevens, Lawrence Huntington, Olmstead and Davis, comprising the best yacht designers on this side of the Atlantic, yet the boat planned by a 23-year-old boy beat them all.

El Heirie was built from Mr. Crane's design by Lawley of Boston. She is twnty-three feet three inches over all, 14 feet 4 inches on the water line, 5 feet 6 inches beam at deck and 5 feet beam at the water line. She has a dagger-board of one-quarter inch Tobin bronze. When this board is raised as far as it will go it still projects about five inches below the boat's bottom, forming a regular keel, nearly four feet long and five inches deep. This is caused by the pivot pin being placed six inches above the lower edge of the board. This also makes the board very nearly self-balancing. With the board down the boat draws five feet.

El Heirie is of double skin construction, mahogony on the outside, with white pine inner planking and deck. She has 210 square feet of canvas, and carries a gaff mainsail. Her bow is needle-shaped, and her stern is dropped down so low that when heeled she sails on twenty feet. She has a very peculiar looking balance rudder. She has a good hard bilge.

Her owner is a graduate of Harvard, and for the past three years has been employed in the designing department of the Cramps' shipyard at Philadelphia.

The first of the international races will be sailed on July 13 in the waters of Oyster Bay, and running out into the broader seaway of Long Island sound. The conditions of the contest call for the best three out of five races, and if the boats are evenly matched all five will have to be sailed. The courses for each day will be twelve miles in length, and they are so arranged that each boat will have a chance to show what it can do in the kind of sailing it favors the most.

In the cup deed of trust the courses are rigidly laid down, as follows: For the first race, to windward and leeward and return; for the second race, an equilateral triangle; for the third race, to windward or leeward and return; for the fourth race, an equilateral triangle; for the fifth race, to windward or leeward and return. Courses may be sailed over twice or more.

It took four trial races before the race committee of the yacht club could decide which boat was entitled to meet the Canadian, but from the first the contest had narrowed down to three of the little fellows, El Heirie, the Riverside and the Ideal, and these fought for the honor to the bitter end.

BIG BUILDING BURNED.

Loss Will Probably Reach $120,000—Fire Chief Injured.

DENVER, July 12.—The two-story brick building of the Denver Consolidated Electric Light company, at Twenty-first and Wynkoop streets, was destroyed by fire at 7 o'clock this evening. The building contained sixteen Westinghouse engines valued at $5,000 each. Boiler rooms and are light part of the plant were but slightly damaged. The fire was caused by a live wire crossing the switchboard. Total loss $120,000; insurance $120,000.

Fire Chief Julius Pearse while driving to a small fire early in the day was thrown from his carriage and badly injured, his collar bone being broken.

The chief's horse, which ran into the shaft of another vehicle belonging to the department, was instantly killed.

SWEPT OVER THE DAM.

Six People in a Boat and Four Lives Lost.

LAWRENCE, Kan., July 12.—A rowboat containing six people was swept over the dam across the Kaw river, just above town, at 8 o'clock tonight, and four lives were lost. The dead are:

L. C. Study, a printer.
Mrs. L. C. Study, his wife.
Katie Reinolds, a young girl.
Infant child of Mrs. Hook, sister of Mrs. Study.

All were drowned in the seething waters below the dam. Many people heard the cries of the imperiled people as their boat was being swept over the dam. Two men were fishing in the rapids below, and succeeded in rescuing Mrs. Hook and Flossie Study, a little girl.

MOST MYSTERIOUS.

Sudden Death of Harry J. J. Pocock, of St. Louis.

WASHINGTON, July 12.—Harry J. J. Pocock, for many years city registrar of St. Louis, died suddenly last night on a train in Ohio between Athens and Parkersburg. His body was left at the latter city.

Mr. Pocock was apparently in good health. About 11 o'clock H. C. Bell, deputy United States commissioner of pensions, was awakened by an agonized shriek from Mr. Pocock's berth. The latter tumbled from his berth into the aisle and soon after being removed to the smoking car, died. The lower berth over which Mr. Pocock was sleeping was occupied by two women, who were discovered ransacking the dead man's clothes. They claimed to be relatives of Pocock. They were turned over to the Parkersburg authorities charged with petit larceny, with the suspicion that they drugged Mr. Pocock for the purpose of robbery. They had $18, which was supposed to have been taken from the dead man's clothes. The elder of the two women said she was from Illinois and the younger from St. Louis.

ADVICE WILL BE GIVEN.

DENVER, Colo., July 12.—A special to the News from Manitou says: Senator Teller who has been a guest of one of the hotels here was today joined by Senator Fred Dubois, of Idaho, and Congressman Hartman, of Montana, awaiting the arrival of Senators Cannon, Pettigrew and Mantle, who are expected on Wednesday, when a conference will be held. Senator Teller will return to Denver. He will be in Manitou again Wednesday and at this meeting an address will be issued as to the course of the Republicans who left the St. Louis convention on the national ticket.

LONDON STOCK MARKETS.

LONDON, July 12.—The Henley regatta and the cricket matches proved superior attractions last week and the stock market was neglected, the chief business being realizings on the eve of settlement. Generally the tendency was downward. Home railways fell on the impending coal strike. Foreign securities and mines were drooping. American market stagnant. The Chicago convention had little effect. Lake Shore was down 3 and other American securities all showed a fractional decline.

FOREIGN FACTS.

CAIRO, July 12.—For the whole of Egypt on Saturday there were reported 362 new cases and 331 deaths, several of the deaths being in Egyptian Armenia at Wady-Halfa. Major Roddy Owne, the famous Uganda explorer, has died of cholera at Ambigol.

BRUSSELS, July 12.—No confirmation has been received here of the report that the steamer Albertville, for the Congo, had been blown up with dynamite on the Bay of Biscay.

BRUSSELS, July 12.—As a result of the elections today to replace half the members of the chamber of representatives whose terms expired, the Catholics gained six seats from the Liberals, thus diminishing still further the minority of the latter in the chamber.

PARIS, July 12.—The final heat of the bicycle races for the Grand Prix was run today in the presence of a distinguished assemblage, which included M. Faure, the president of the republic. Morin won the race, Jacquelin coming in second and Edin third.

LONDON, July 12.—The Daily News reports that the second blue book on Venezuela, which is to be submitted to the United States boundary commission, is now complete.

HAVANA, July 12.—A fight between Colonel Pinera's forces and the enemy under General Capel, in the San Lorenzo hills, near Moscenas, in the Holguin district, lasted two hours, and resulted in the defeat of the insurgents. They left seven killed and carried off seventy killed and wounded. The troops had four killed and fifteen wounded.

HOME HAPPENINGS.

OYSTER BAY, L. I., July 12.—The tiny yachts Glencairn and El Heirie, which will tomorrow begin the international contests for the Sewanhaka Corinthian Yacht club's challenge cup, were given their last overhauling today and will enter the race in apparently perfect condition.

NEW YORK, July 12.—Racing will change from the big tracks to the small tracks tomorrow. There will be eight days continuous racing at Aqueduct and then Brighton will have its summer meeting beginning July 22 and ending August 14th.

DENVER, July 12.—Mrs. A. E. Rinehart, an enthusiastic wheel woman of this city, has achieved distinction by riding ten centuries in ten days.

CINCINNATI, O., July 12.—Specials to the Commercial Tribune report damage to crops, bridges and highways from the heavy rain last night. A waterspout near Augusta, Ky., made Big Bracken and Locust creeks rise so suddenly that some live stock was lost.

MERE ROT.

Alleged Statements Made By a Nameless Populist.

ST. LOUIS, July 12.—The impression seems to be strong among local Populists that if the Democratic named at Chicago is endorsed by the Populist national convention to be held here on the 22nd inst., it will only be after a hard fight.

"Teller is still our man," said a well known Populist and silver party man, "and watch what I tell you, we will nominate him. We figure it is best for the silver cause to nominate Teller. He can carry the silver Republican states and can secure more electoral votes than Bryan. Bryan will carry the silver Democratic states, and between Teller and Bryan we could secure enough electoral votes to prevent McKinley's election. If this can be done the electoral votes for silver will hold together and will select Teller and Bryan for president. This is the latest plan of the Populists."

THE DIAMOND.

Almost a Shut Out.

ST. LOUIS, Mo., July 12.—Today's game was not a very interesting one, the Browns being almost shut out. The Washingtons made nineteen hits off Donahue, out of which they scored fourteen runs, aided by errors.

Washington heavy batting and good fielding were the features of the game. Attendance 5,000. Score: St. Louis, 1; hits, 4; errors, 5. Washington, 14; hits, 19; errors, 3. Batteries—Donohue and McFarland; King and McGuire.

Brooklyns Won.

CINCINNATI, O., July 12.—After Brooklyn tied the score in the seventh the Reds by a batting rally in the succeeding inning, won the game. It was nip and tuck from the start, but while the Cincinnatis made more errors than their adversaries they bunched them in one inning and played gilt edged ball in the other eight. Attendance 11,200. Score: Cincinnati, 9; hits, 15; errors, 3. Brooklyn, 5; hits, 10; errors, 1. Batteries—Ehret and Gray; Pietz, Harper and Grim.

Winning Streak Broken.

LOUISVILLE, Ky., July 12.—The Colonels' winning streak was broken today by their stupid base running and failing to connect with the ball when men were on bases. Attendance 8,500. Score: Louisville, 2; hits, 10; errors, 4. Baltimore, 7; hits, 14; errors, 2. Batteries—Hill and Miller; Dexter, McMahon and Clark.

Good Luck and Sun.

CHICAGO, July 12.—Great luck and the boiling sun gave the Spiders today's game in the fifth inning. After two outs Wallace backed away from the plate but the ball struck his bat and lit in the right field for two bases and McAleer followed with a fly to left that went for a triple. Both pitchers did excellent work and were ably supported. Attendance 11,000. Score: Chicago, 2; hits, 7; errors, 1. Cleveland, 5; hits, 10; errors, 2. Batteries—Briggs and Kittredge; Wilson and Zimmer.

DEADLY TIDAL WAVE.

SAN FRANCISCO, July 12.—The steamship Doric arrived from Yokohama tonight, bringing news up to June 25. Estimates of the loss of life from the great tidal wave reach as high as 50,000, and this number is believed to be far below the mark. The tidal wave was eighty feet in height and swept inland a distance of two and a half miles, along 200 miles of the coast. Thousands of acres of land under cultivation were devastated and the inhabitants of the flooded districts are suffering from famine.

THE FOURTH AT HONOLULU.

HONOLULU, July 6.—Via San Francisco July 12.—The fourth of July celebration was the largest demonstration ever held in this country. The oration was delivered by Major S. K. Pangborn, of Jersey City. A public reception was held by President Dole, which was largely attended. A resolution was presented to the president by the Hawaiian Republican club, an organization composed of native Hawaiians, congratulating the government on its successful administration of affairs.

The first meeting of the recently elected council of state was held on the 3rd. On recommendation of the president, pardons were granted to T. D. Walker, Charles Warren and four other political prisoners, who have been at liberty on parole.

The Austrian training ship Saidi arrived from the South Sea on the 2nd. Yokohama will be her next port of call.

HALF A MILLION LOSS.

ANOTHER DISASTER FOLLOWS THE ST. LOUIS CONVENTION.

Merchants' Terminal Elevator Burned at an Early Hour This Morning.

ST. LOUIS, July 13.—At 2:30 o'clock this morning, fire was discovered in the boiler room of the Merchants' Terminal elevator, located at Second and Biddle streets. An alarm was immediately turned in, which was soon followed by a general alarm, and although the fire departments responded promptly the large building was completely enveloped in flames upon their arrival. The building being an old and dry one, the flames eat their way to the top as quickly as if it had been so much paper. The whole north portion of the city was illuminated for many blocks and such heat that the work of the firemen was very difficult. The heat being almost unbearable. About thirty minutes after the fire broke out a 200 foot smokestack fell, narrowly missing a number of firemen below. Twenty minutes after this the west wall was found to be tottering, which necessitated the removal of the fire engines working on that side, the wall collapsing shortly afterwards. John F. Ryan, president of the company, did not arrive on the scene until some time after the fire started, and when seen estimated that the loss would be at least $500,000. The elevator contained many thousands of bushels of grain, the exact amount not being known.

At this hour—4 o'clock—the fire is under control.

THE TURF.

NEW YORK, July 12.—Following are the weights in the Brighton handicap one mile and a quarter, to be run on the opening day at Brighton Beach, July 22: Henry of Navarre, 134; Clifford, 128; St. Maxim, 120; Sir Walter, 114; Keenan, 112; Requittal, 110; Ben Brush, 110; Nanki Pooh, 10; Margrave, Patrician, 108; Belmar, 103; Senator Grady, 102; Paladin, 100; Dutch Skater, 98; Emma C, 96; The Swain, 95; Premier, 90; Sapolo, 85.

FOR THE FRENCH SHORE.

ST. JOHNS, N. F., July 12.—The French flagship Clocheterie sailed this morning, bound for the French shore. The British cruiser Mohawk follows tonight. The cruiser Buzzard is already on the coast. The flagship Codelia remains here in touch with colonial and imperial authorities. The commodore conferred with the government yesterday trying to settle the question of duties, the government stubbornly insisting that the taxes must be paid. They are influenced in this by the French warships forcing fishermen to cease using cog-traps.

AN EFFICIENT REFORMER.

The new minister was talking with one of the influential citizens of the village in order to get some idea of the personnel of his congregation, says the Detroit Free Press.

"I hope we'll get along very nicely together," he remarked politely.

"I hope to, too. I don't doubt that you'll be all right with the older members. But I'm afraid you won't be as pop-lar weth the youth men ez the other was."

"Did he address his remarks especially to them on any regular occasions?"

"No. Their liking for 'im seemed to start all of a sudden. He had took charge of the Bible class in the Sunday school durin' the absence of the reg'lar teacher. Some of the younger men was inclined not ter pay 'tention, an' one er two said things ter make the rest laugh about his bein' purty young an' wonderin' how soon the infant class 'ud be settin' up to do teachin'."

"Of course he kept his temper?"

"Yes, indeed; an' when the lesson was over he said: "Gentlemen, I'd like ter make yer further acquaintance. I've fixed up a kind of gymnasium where I live an' I'd like ter have ye come up ter-morrow evenin' ter look over the apparatusses an' things.'"

"Did they go?"

"Couldn't keep 'em away. They thought it was goin' ter be a chance ter have some more fun weth 'im. The day after two of 'em had black eyes, one of 'em had a skinned jaw an' another had pieces of stickin' plaster all over his left ear. They never went into particulars about what happened, but one of 'em told me thet ye never could tell 'bout these people who hed jes' come from college. An' from that day ter this there never was anythin' too much fur 'em ter do ter 'blige the minister."

WHY IT COSTS.

One of the Many Kinds of Labor That Makes Wine.

The lot of a worker in a champagne cellar is not likely to be envied by any one. To begin with, the temperature in the dim vaults under the earth where the wine is stored is naturally very high. This is well enough in winter, but in summer it is almost unbearable. The intense gloom and silence are enough to drive many a man mad.

Imagine, for instance, a person spending ten hours of continuous toil in lifting bottles from their racks, giving them a turn or two, and replacing them; this, too, in absolute solitude, in a slip of a gallery deviating from a main corridor, and curtained off from the sound of his comrades' voices in the distance by a wet sackcloth at the opening.

A deft workman will, it is said, turn from 25,000 to 30,000 bottles daily. This is his work day after day. It is one of the various processes which give us a wine clear as crystal, and from which almost every particle of sediment has been coaxed and expelled. Not many men can stand this dismal monotony, which really seems almost on a par with certain of the experiences of a Siberian exile.

Life in the champagne cellars does not tend to length of days. After a spell of years in such employment a man seems to have become unfitted for continuous existence above the ground. But 45 is reckoned an old age with a champagne worker.

PENETRATING THE DEPTHS OF THE FIRMAMENT.

PHOTOGRAPHY AND THE TELESCOPE ARE RENDERING MORE INTELLIGIBLE THE STRUCTURE OF THE SIDEREAL SYSTEM—WITH OUR LARGEST TELESCOPES WE CAN GATHER RAYS OF LIGHT WHICH LEFT THEIR SOURCE 9,000 YEARS AGO, LONG BEFORE THE PYRAMIDS OF EGYPT WERE BUILT.

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In the recent progress which has been made in the study of the heavens, the photographic plate has played a most important part. Indeed, the facilities which the resources of photography have placed at the disposal of the astronomer, are every day increasing. The older methods of observation are in many cases gradually being displaced by the more accurate and far more comprehensive methods which the camera offers. It has been asserted, and I do not think that the truth of the assertion will be questioned, that the advance in the astronomers' art which is due to the introduction of the photographic plate into the observation, is not less far reaching in its effects than the advance which was inaugurated when Galileo first turned his newly-made telescope to the sky, and thus wonderfully augmented the space penetrating power of human vision.

Almost the first feature which will strike the observer who is examining a good photograph of the sidereal depths, is that though there may be hardly any part of the area presented which is quite free from stars, yet that they are distributed with very great irregularity. In some regions the stars are aggregated in countless myriads, indeed, in many parts of the heavens they lie so closely packed that the individual points can hardly be distinguished separately. Ordinary observation even with the unaided eye, prepares us in a measure for this striking irregularity in stellar distribution.

Who has not often dwelt with admiration on that glorious stellar girdle which we know as the Milky Way? It is a mighty zone of stars surrounding our solar system. Indeed a just estimate of the relation of the sun to other bodies in the scheme of the universe would regard our great luminary merely as one of similar stars aggregated in countless myriads to form the Milky Way. From the peculiar nature of the stars in the Galaxy, as this system is often called, it is quite obvious that these wonderful starry clusters have some bond of connection between their component parts, due probably to a common origin. To realize the splendor of the Milky Way we have to remember that minute as the stars of which it is composed may seem from where we are situated, yet each each one of those stars is in truth shining with the independent brilliance of a sun. It might have been thought that it would be quite impossible for an object so vast and so bright as our sun, to display no greater splendor than that feeble twinkle which is all that reaches us from one of the stars in the Milky Way. Here, however, the question of distance is of paramount importance.

If the sun which shines in our skies were to be withdrawn from our neighborhood into the depth of space, if it were to be carried to a distance as remote as is that of many of the stars which we see around us, our great luminary would have lost all its preeminent splendor, and would have dwindled to the relative insignificance of a small star, not nearly so bright as many of those stars which shine over our heads every night. I do not indeed say that each and every one of the stars in the Milky Way is as large as our sun; no one who understood the evidence would have the hardihood to affirm so gigantic a proposition. At the same time I should add that I do not know any grounds on which such a statement could be certainly contradicted if any one did affirm it. The probability seems to be that, though many of the stars in the Milky Way may resemble our sun in lustre or dimensions, yet there are in that marvelous group suns lesser and greater in nearly as many grades of magnitudes as there are objects in the Galaxy itself.

The problem of determining the distance of a star from the earth, is one which taxes the highest resources of the observing astronomer. Of all the millions of the celestial host there are hardly 100 stars whose distances have been measured with accuracy by those surveying operations by which alone this problem can be accurately solved. We are, however, not quite destitute of methods by which we can in some degree estimate the remoteness of other stars, even though their distances may be so great as to elude entirely all the more direct methods of measurement. Suppose that a star were just bright enough to be visible to the unaided eye, and then suppose that particular star were to be withdrawn to a distance ten times as great. It would still remain visible to us by the help of a small telescope. If the star were withdrawn to a distance 100 times as great, it would still generally remain within the ken of a large telescope. When, therefore, our large telescopes reveal millions of stars, which seem just on the verge of visibility, it is plain that those stars, assuming that they are intrinsically as bright as the stars which can just be seen with the unaided eye, must be at least 100 times as remote.

It should also be observed that a star as bright as Sirius would still be visible to the unaided eye, though, of course, only as a very small point, if it were translated to a distance ten times as great as that at which it is now situated; if Sirius were at a distance 100 fold greater than that at which it now lies, it would still be found within the range of a telescope of moderate power. Indeed, if Sirius were at a distance 1,000 times as great as that by which it is at present separated from us, it would still not have passed beyond the ken of our mightiest telescopes. We have thus sound reasons for our belief that some of the stars which we can see through our telescopes, are at least 1,000 times as remote from the earth as Sirius.

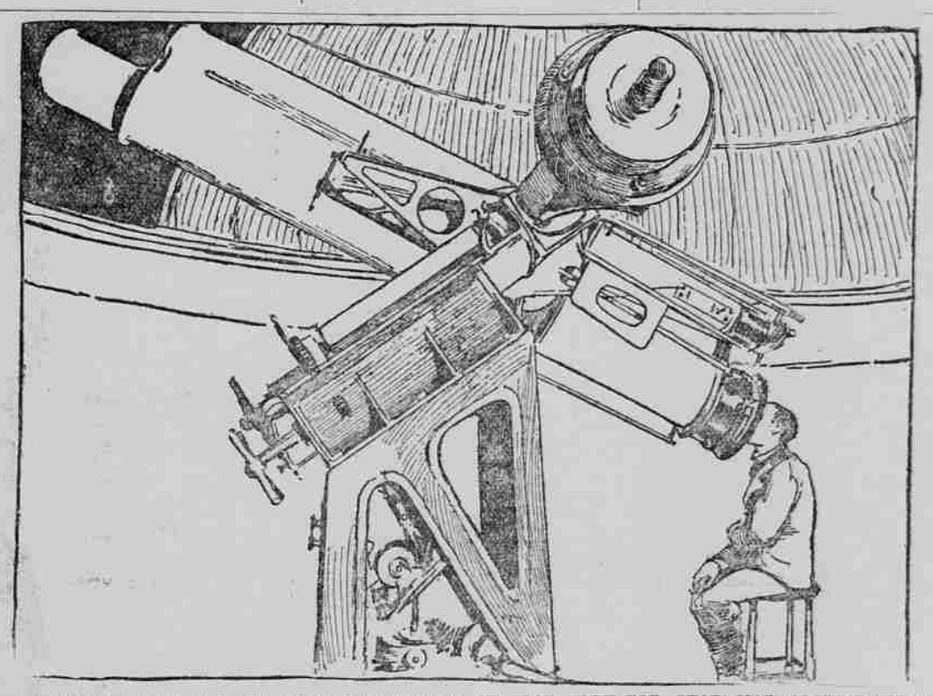
Recent researches made by Dr. Gill and Dr. Elkin at the Cape of Good Hope, have demonstrated what the distance of Sirius amounts to. It has been shown that the rays from Sirius, traveling as they do with the stupendous speed of light, namely, at the rate of 180,000 miles each second, would nevertheless require not less than nine years to traverse the distance between that star and our system. In other words, when we are looking at Sirius tonight, we do not see that star as it is at present, but we see it as it was nine years ago. The light which reaches our eyes tonight must in fact have left the star nine years before. We have already shown that there is good reason for the belief that there are stars which are still visible in our great telescopes, notwithstanding that they are 1,000 times further from us than the brilliant Sirius. It follows by a line of reasoning which it seems impossible to question, that the light from such a star must have occupied a period of not less than 9,000 years in its journey to the earth. The consequences of such a calculation are indeed momentous. It is plain that we do not see such stars tonight as they are tonight, but as they were when our earth was 9,000 years younger. The light from such stars which is now entering our eyes at the close of its unparalleled journey has occupied all that long interval in crossing the abyss which intervenes between the solar system and the awful stellar depths. This vast time has been required for the journey, notwithstanding the fact that the light speeds on its way with a velocity which would carry it seven times around the earth in a second. Indeed, the stars might have totally ceased to exist for the past 9,000 years and we should still find them shining in their places. Not until the light which was on its way to earth at the time of the star's extinction had entered our eyes, would the tidings of that extinction have become known to us. We are looking at such stars as they existed long before the earliest period to which any records of human history extend.

We can illustrate the same subject in another way. Suppose that there were astronomers in those remote stars, and that they were equipped with telescopes enormously more powerful than any telescopes which we have ever constructed. Suppose that notwithstanding the vast distance at which they lie they had the means of scrutinizing carefully the features of this earth. In what condition would our globe be presented from their point of view? These distance observers would not see any traces of the cities and the nations that now exist. Britain would appear to them as a forest inhabited by a few savages and North America would be the home of the bison and the red men. They would look down on an Egypt in which the pyramids had not yet been built, and they might survey the sites of Babylon and Nineveh long ere those famous cities had been reared.

Besides those sidereal objects of which we have spoken there are, of course, others seemingly as numerous as the sand on the seashore. No spectacle which the heavens display is more impressive to the beholder than that of a globular cluster, in which thousands of stars are beheld packed closely together within the limits of his field of view. Each of those stars is itself a sun, the whole forming a dense group of associated suns. Indescribable indeed must be the glory which would shine upon a planet which was situated in such a system. It seems, however, impossible that planets in association with thousands of suns, such as are found in a globular cluster, could possess climatic conditions of sufficient constancy to meet the requirements of organic life. For the development of life practical stability of climate would seem to be essential. Such conditions could, so far as we know, only be secured in a system like our own, which is controlled by a single sun around which the several planets revolve. In such a case there would be no disturbances to the regular motion of each planet except those trifling ones which arise from the attraction of the other planets equally beholden to the central luminary. But a planet primarily attached to one of the suns belonging to a globular cluster would be so much disturbed in its revolution by the attractions of the other surrounding suns that the movement of the body would in all probability be too irregular to be compatible with any stable climatic conditions. The vicissitudes of climate with which we dwellers on the earth are familiar would seem as nothing in comparison with the vicissitudes of climate in a planet belonging to a system of several suns. It would seem that occasionally the planet must come so near to one or other of the attracting suns that if any life had existed on such a planet it would necessarily be scorched to destruction.

Besides these globular clusters, the heavens contain many other striking groups. We may mention, for instance, the famous cluster in Perseus, an object of indescribable beauty, which fortunately lies within the reach of telescopes of comparatively moderate power. There are also many clusters so distant that the stars are hardly to be discerned separately, in which case the object looks like a nebula and the resolution of the nebula as it is called, that is, the perception of the isolated stars of which the nebulous looking object is formed, becomes a problem which can only be solved by the very highest telescope power. It has been conjectured that these dim and distant clusters may be associations of stars very like that Milky Way which is relatively quite close to the solar system. It may indeed be the case that a sidereal group like the Milky Way would, if transferred to an extremely remote part of the universe, present much the same appearance in our telescopes as that which one of these nebulous clusters does at present.

Magnificent as are the sidereal systems displayed to our observation we ought still to remember that there is a limit to our vision. Even the largest and most brilliant of suns might be so remote as be entirely beyond the ken of the greatest of telescopes and the most sensitive of photographic plates. Doubtless stars exist in profusion elsewhere than in those parts of space which alone come within range of our instruments. As space is boundless it follows that the regions through which our telescopes have hitherto conveyed our vision must be as nothing in comparison with the realms whose contents must for ever remain utterly unknown. Innumerable as may seem the stars whose existence is already manifest there is every reason to believe that they do not amount to one-millionth part of the stars which occupy the impenetrable depths of the firmament.



PHOTOGRAPHIC TELESCOPE USED AT THE CAPE OF GOOD HOPE FOR STAR MAP OBSERVATIONS.

A CHANCE FOR A MILLIONAIRE.

Stowe House, long the home of the ducal house of Buckingham, has been placed in the hands of agents to be let or sold. Many readers will remember the place from Pope's often-quoted line —"A work to wonder at—perhaps a Stowe." Others will recollect references to its glories in the writings of Horace Walpole, Congreve and others who have termed it an "Elysium." "If anything under paradise," wrote Pope to Bolingbroke, "could set me beyond all earthly cogitations, Stowe might do it." Lord Chesterfield and Lord Chatham were as loud in its praises as Walpole.

In the present century Stowe has more than once been the temporary home of the exiled royal family of France; and it is now offered "to be let or sold owing to the death of the Comte de Paris." Stowe belonged to the Canons of Oseney, near Oxford, till the Reformation, when the broad acres of the estate were given for a short time to Wolsey's great college at Oxford. Four centuries ago, in 1592, it was conveyed to the Temples, one of whom soon afterward erected there a cobham, through whom it passed to the Grenvilles, and so to the dukes of Buckingham. The estate having become involved in debt, the place was dismantled in 1848, when the furniture alone was sold by George Robins for upward of £70,000. The last duke lived again at Stowe, but after his death the property passed into female hands.

Some idea of the size and gradeur of Stowe may be formed from the fact that its grand front is 900 feet in length. Its gardens, roseries and collections of foreign trees and shrubs are among the finest in the kingdom, and so also are its statuary and sculpture, both inside the house and in the adjacent grounds; and the Grecian and Italian temples which diversify its "Elysian Fields" are full of classical inscriptions, chiefly from the pens of scholars and statesmen of the last century. The gardens were originally laid out by Bridgeman, but were largely altered and improved by Kent and by "Capability" Brown.

THE PRINCE OF BOHEMIANS.

Goldsmith! what other name in modern song
Lies on the lips so lovingly and long,
As his, the lowly piper of Lissoy,
Who left to man what time can ne'er destroy—
Whose genius lifted, in an age of hate,
The muse of Britain from its low estate,
And from the grime of London brought to view
Such grace of song as England never knew.
Of all unlucky bards, Goldsmith was first,
Mothered by Want and by Misfortune nursed—
A child of folly from the cradle cast
Upon the world to face its every blast;
Infirm of will, untutored to deceive,
A heart made keen to pity and relieve—
A self-forgetful nature, quick to know
A wretch's need, and first to share his woe;
A gentle spirit, wayward as the wind,
Fluting for bread, and studying mankind;
By choice a rover, free and easy still,
No friend to fret him, and no purse to fill;
At home in every land, on every sea,
Where Mirth and Wine and Fellowship could be;
His soul behind no curtained casement stood,
But loved the pulse and glow of brotherhood,
And prince and pauper shared alike the strong
Fraternal fervor of his deathless song.
Amidst the gloom of Grub street see him creep,
Hungry and hollow-eyed for want of sleep,
Alone indulging a sublime despair
Lest death, in passing, may not find him there.
Crushed with the weight of follies overpast,
In London's lap he throws himself at last,
Bruised with distrust and battered with disdain,
A soul who never gave the world a pain.
—James Newton Matthews in New Bohemian.

THE BRIGHTON HOTEL,

the famous mountain resort, to the delight of many will be opened for this season Friday next, July 10. Those desiring to escape the heat of summer and the care of business can get it by spending a few weeks at this beautiful resort, bordering on the Silver lake at the head of Big Cottonwood, enjoying the cool mountain breeze and cordial treatment that will be given at the hotel. BRIGHTON BROS., Prop.

Stage will leave the Cullen hotel every morning at 9

SUBSTITUTE FOR THE SUN.

VACUUM TUBES WILL REVOLUTIONIZE LIGHTING OF CHURCHES.

It is Soft, Shadowless and Cool—Gas, Oil and Electric Lights Have Failed to Properly Light Interiors as the New Light Will.

The churches and cathedrals of the future will be lighted as they have never been before. People have had to content themselves for centuries with worshipping in inadequately lighted churches. The invention of the new vacuum tubes is destined to revolutionize the lighting of such interiors.

The architects of all the greatest churches of the world have been obliged to make the best use they could of candles, lamps or gas, which at best gave out a reddish glare and cast deep shadows. The use even of the ordinary electric light produces a brilliant effect, but it does not as a rule harmonize with church interiors.

SOFT AND SHADOWLESS.

The new light is very soft and clear and is capable of producing a great many different effects. By using small tubes and running them along the edges of the arches or pillars a very even and subdued light may be produced throughout an immense interior.

The tubes have the additional advantage of not casting the slightest shadow. This subdued light will not necessarily be at all gloomy or sombre.

The new light is noted for the quality known as its range of legibility. Congregations in the churches of the future which are lighted in this way will have no trouble to find the right page in the hymn books. The light from vacuum tubes is almost the counterpart of ideal daylight.

One of the most important advantages of the new light is that it gives out very little heat. The contrast in this respect between it and the ordinary forms of light is so great that the vacuum light is frequently called "cold" light. The temperature of the gas in these tubes seldom exceeds 100 degrees centrigrade, while the temperatures of some solids must be as high as 25,000 degrees centrigrade in order to produce white light.

COOL AND HEALTHFUL.

The importance of this can hardly be overestimated in lighting interiors such as churches, where a great many people gather. The tube light will keep the atmosphere of churches much cooler than any other light, besides being much more healthful.

A WICKED CITY.

Port Said the Worst in the World.

On the baking sands at the southeast corner of the Mediterranean, just where the Suez canal gives berth to tons of steamers, ships, and every sort of craft, lies Port Said, the worst city in the world. It is not lightly, says the London Daily Mail, that this dirty, unattractive town on the borderland between Asia and Africa, half mud walls and half brick has been given this name, for if ever a locality deserved such an approbrious designation it is Port Said.

Not in any single particular has Port Said any advantages, commercial or atmospheric. Seven months in the year it is baking hot and fever-breeding, and the other five months hardly less dangerous to health. Trading or business there is almost none in the ordinary way, not even of the Oriental sort. Few cities, indeed, have so little to offer in the way of shops and goods for sale. Port Said's sole business importance, in fact, is simply that it serves as a port of call for the vessels just entering or just leaving the Suez canal.

There are 15,000 or 20,000 people in the town who are permanent residents, but there not being any business to speak of, four-fifths of these lead idle, wandering, dissipated lives. Their numbers are constantly added to, for, with the arrival of every ship in the roadstead—a ship is always bound to stay there ten or a dozen hours at least—crew and passengers come ashore for strolls through the dirty streets, and a number of them drink and gamble in the dens that dot the town on every hand.

Two things go to keep Port Said the worst city in existence, one being the climate, which makes hard drinking a necessity for the residents, and the other the fact that for some reason or other the scum of all the nations near by pour themselves into it. Italians, Russians, Austrians, Turks, Abyssinians, Egyptians, Arabs, Spaniards, Frenchmen, and even a few degraded Englishmen are to be found in every corner of this profligate settlement, all of the worst types their respective nations can produce, blacklegs, swindlers, gamblers, forgers, murderers, and professional beggars whose arts have failed elsewhere. The climate causes men who take up a residence on these burning sands to drink to avoid the fever, which is always a present danger. Somehow, the degraded and vicious of the population—or about four-fifths of the inhabitants—manage to stand this climate and live year after year, but the decent people who have to stay in Port Said for business reasons find it impossible as a general thing to keep both sober and healthy. They have to choose between the two, and it is a common saying that five out of every six men who go to live at Port Said die either of delirium tremens or fever within a few years.

Most of them succumb quickly to the temptations of the place, and join in the great processions of dissipation and loose living. There are, it is true, many respectable persons living on the outskirts of the town, but they make no impression upon the great unleavened mass.

The officials of Port Said either do not care or else they have determined that it is better for them financially to take no notice of the evils around them. Certainly no attempts are being made to improve the city in any way. Day in and day out swindles are being worked in the open air without the faintest attempt at disguise. The sounds of quarrelling and the cries of cheated victims float out into the night at all hours, and the tragedy of the settlement goes on unchecked.

The mingling of races from every corner of the globe is probably more remarkable at Port Said than in any other spot in the world. It is no wonder that, placed as it is, at the very gateway between the Occident and the Orient, the worst evils of Europe and Asia should there find a congenial environment. Some idea of the number of transient visitors, whose money does so much to keep the place alive, and their cosmopolitan character, may be had when it is stated that last year nearly 3,500 vessels of infinite different nationalities touched at Port Said.

Bucklen's Arnica Salve.

The best salve in the world for Cuts, Bruises, Sores, Ulcers, Salt Rheum, Fever Sores, Tetter, Chapped Hands, Chilblains, Corns and all Skin eruptions, and positively cures Piles or no Pay required. It is guaranteed to give perfect satisfaction or money refunded. Price, 25 cents per box. Fore sale by Z. C. M. I. drug department.

When one is lying down the heart makes about ten strokes less a minute than when one is upright. That means a saving of 600 strokes per hour, or about 5,000 heart beats during the eight hours spent in bed. The heart pumps six ounces of blood with each beat. It therefore lifts 30,000 ounces less of blood in a night of eight hours spent in bed than when one is in an upright position. The blood flows just so much the more slowly through the veins when one is lying down, therefore one has to use extra coverings to supply the wormth usually furnished by circulation.