THINGS NEW, QUAINT, ODD AND INTERESTING, GATHERED HERE FROM ALL QUARTERS OF THE HABITABLE GLOBE

ELECTION WORK IN SOUTH AFRICA.

The motor car has been utilized by the candidates and their agents in the election campaign at the Cape, but it has not been a success. In some kraals the Kaffir electors have simply fled from it in positive terror, believing it to be propelled by witchcraft, while even the rural and untravelled Dutch regard the conveyance with suspicion.—(The Sphere.

CANADIAN MOUNTED MEN.

Police Force of the Northwest Needs Recruits—Attractive Life.

Regina, N. W. T., Canada, Oct. 25 (Special).—The Northwest Mounted Police has room for a few recruits, and here's a chance for young Easterners who want an out-of-door life for a few years. In times gone by the conventional thing to do was to become a cowboy or go to sea before the mast. But the ranch business is played out now, as far as romance is concerned, and the sailorman has become no better than a day laborer, although he gets sworn at more and is knocked down once in a while. But the bloom is still on the job of a mounted policeman in the Northwest Territories, and young men of excellent family have been attached to it in some numbers.

Of course, one must not imagine that one of these dignitaries is at all like a New-York "copper," who drags drunken women to the police station and goes to court to swear that he caught a newsboy shooting "craps." The mounted police are more of a military body. Primarily, they are supposed to keep order among the Indians, and incidentally they arrest a thief or do any other police work that turns up. But the Indians of the Northwest Terriotry are disgustingly well behaved. Indeed, if they were less so there would be lots more fun in being a mounted policeman. Anybody who wants to join this honorable body in the expectation of running a chance of getting scalped or of having some shots at braves on the warpath should frankly be warned that he is on the wrong tack.

In the Klondike rush the mounted police were of great service in keeping order, and so wholesome is the respect shown them that their mere presence is enough to prevent trouble or to quell it. A visitor out here asked whether the cowpunchers all carried revolvers.

"What for?" was the sharp reply.

"Why, in case somebody stole their cattle or tried to rob them, or they got into any kind of a fight."

"What do you suppose the mounted police are for?" was the disgusted answer, and that closed the conversation.

The whole population seems to have a high regard for the members of this corps. Their uniform insures them a warm welcome wherever they go. In the sparsely settled regions their visits are considered a treat. With the fair sex the brilliant crimson of the uniform is effective. When representatives went to London to take part in the Queen's Jubilee and the coronation of King Edward marked attention was shown them. In short, the police trooper is a lucky dog all around.

The mounted police form a military organization, with this difference, that they escape most of the restraint and monotony of the ordinary "Tommy Atkins." Regina is the headquarters of the 840 men who make up the corps, but they are scattered all over the Territory. Here are the barracks, officers' quarters, storehouses and drill-hall, and they form a neat village in themselves.

No man broken down in health or unaccustomed to handling horses or to outdoor life should expect to join the force. It is not a kindergarten for rough riding, but if a man is lacking in the experience necessary, he can readily secure it out here and then be mustered in without more trouble.

TENDER HEART OF GENERAL STUART.

At one of the clubs of war veterans the other evening sat one who had worn the gray uniform of an officer in the Confederate service, but he is recognized by the "boys who wore the blue" as having won the right of brotherhood, and he often entertains the Grand Army with anecdotes of "The Lost Cause."

He related a touching incident about General J. E. B. Stuart, showing that this model of Virginia cavaliers and dashing chieftain, whose name was a terror to the enemy, had a sympathetic and tender heart, a soul that could be tried by other things than battle with gun and sword. One night there came to "Jeb," as he was familiarly known, a telegram announcing the death of his daughter Flora, a lovely and dearly loved child of five years. She had been seriously ill for some time, and when a warning message from his wife reached him he sadly said: "My duty to my country must be performed before I can give way to the feelings of a father." But when the notice of her death was read to him by Van Borcke, his chief of staff, the latter said: "The firmness of the warrior was overcome, he threw his arms around my neck and wept bitter tears upon my breast." Many a time afterward Stuart spoke of his child, but he never recovered from the cruel blow.

The relator continued: "When, in 1864, in May, Stuart had been struck down by a Union soldier's bullet, he was asked how he felt. He replied: 'Easy, but ready to die if God and my country think I have fulfilled my destiny and done my duty. My dear friend, I shall soon be with little Flora again, and later my wife will join me.' The following day the general had grown weaker, and when told there was no hope of recovery he nodded, and said: 'I am resigned if it be God's will; but I would like to see my wife once more. But God's will be done.' A message had been sent to Mrs. Stuart that he had been wounded, but not necessarily dangerously, hence she did not hasten as she would otherwise have done and she did not reach the place till two hours after he had passed away."

RIDING A CENTIPEDE.

"The quality of imagination, which forms part of the outfit of the able newspaper correspondent, is sometimes utilized in the preparation of his expense accounts, when it is not easy to make both ends meet on the itemized document, which must pass the critical eye of the managing editor," says "Collier's Weekly." "A young man who had done much important work for a New-York newspaper was sent last year to investigate certain sensational conditions in the back country of Kentucky. The trip necessitated a good deal of horseback riding, and also several halts at crossroad taverns overnight. In such wayside retreats the company was congenial and convivial, and the correspondent enjoyed the experience, barring two disastrous sessions of poker, at these stopping places.

"When it came to making up an itemized expense bill for the trip, he found himself grievously out of pocket. He added every legitimate item of cost that an elastic auditor might let slip by, but the deficit was still appalling, and he knew that it must come out of his salary envelope, sooner or later. By way of helping along, he remembered that his horse had cast a shoe on two or three occasions, at a cost of $1 'per cast,' paid to country blacksmiths en route. 'Everything counts,' said he, and in haste scattered through the long expense bill the item, 'Horse reshod, $1.' He intended to revise the bill and give it a final inspection before turning it in, but forgot to take it out of his pocket again, until he passed it in at the office. The managing editor was in a great hurry, and he scrawled an 'O. K.' without any comment, to the joy of the correspondent.

"When the young man went to the cashier's to collect, he received a shock which re-echoes in that office to this day. The cashier is an aged man, usually impenetrable to anything approaching a jest. In his forty years of service with this newspaper he had never been known to dally with a joke of any kind. He carefully read through to the bottom, then cocked an eye over his spectacles—an eye in which there was the shadow of a twinkle—as he said: 'Very interesting, Mr. Blank. The roads must have been very rough. Horse shod frequently, wasn't he? By the way, would you mind telling me whether you were riding a horse or a centipede?'"

MOVING A WATER MAIN.

Shifting a Section 1,200 Feet Long Without Interrupting Service.

In a recent issue of "Engineering News" Seth M. Van Loan describes a remarkable piece of work recently performed in Philadelphia. It was necessary to alter the position of a section of water main 4 feet in diameter and about 1,200 feet long. Had it been permissible to shut off the water for a few days or weeks the task would have been simple. But it was necessary to keep the pressure on all the time.

The position was to be altered in two directions—sideways about 11½ feet, and downward a trifle over 13 feet. This change was effected in about 800 feet of the main. At each end 200 feet of it started from the new site to the old one, in order to maintain connections with undisturbed pipes. Mr. Van Loan supplies these particulars of the operation:

To place the pipe in its new position the actual laying length was found to be 14 inches longer than in its original location, which indicated the necessity of drawing the joints to that extent. It might appear that 14 inches distributed over 100 joints would offer no difficulties, providing each joint would perform its respective duty, but the additional length was, in a measure, required at one end, limited, as is mentioned above, to a distance of 200 feet. This required increase in the length of the pipe, taken with the decided opening of the joints required to break down on the established grade, demanded that the utmost care be exercised during the progress of moving.

The method of procedure was to prepare the trench for the final location of main, uncovering the pipe in question at the same operation. Excavation beneath the pipe followed, earth being removed to a level about two feet below the barrel, leaving that section of earth which supported the blocking. Having prepared about 200 feet in this manner, the work of lowering was started and conducted uniformly by digging under the blocking. The greatest depression was the last to be placed in position, thus allowing any gain in pipe to work up to where it was most needed.

When a grade slightly above the final elevation was reached, skids were inserted beneath each length, upon which greased iron straps were placed for a sliding surface, and the work of moving laterally was started. Screw jacks were used for this purpose, one for each pipe, placed about 18 inches from the bell end. The main was then worked over, following the same plan as in lowering. To guard against excessive pull in any joint, marks were placed on top and on each side of every pipe, close to the bell of its neighbor. Small gauges were used continually at these marks, and should a joint pull more than the adjacent ones care was taken to relieve it by a manipulation of the screws.

During the forcing of the main along the skids counter braces were in position on the opposite side of the pipe, and, as it was necessary, sections were sawed from the bracing to allow for the movement of the main. These braces were found to be of decided value, keeping the sections handled from buckling.

During the lateral moving the pipe revolved on its horizontal axis to a decided extent, in some cases as much as 100 degrees, due undoubtedly to forcing the pipes along the inclined skids.

The lead in many joints was forced out one-half inch, and in one case as much as one inch. These joints were not disturbed, unless water spurted, at which time light calking with a chisel stopped the leak. Several men were kept busy looking after these places, and in some cases extra lead was hammered in the joints. Too much pounding of the joints was not allowed, it taking the life out of the lead. The entire operation of moving the pipe required a month.

M. JACQUES LEBAUDY.
The "Emperor of the Sahara."

M. Jacques Lebaudy is not a humorist, but he is the cause of a little mild humor in others. Paris has set him down as crazy. In London he conducts himself in a fashion which suggests remarkable self-control. He refuses to be interviewed, and he knows by instinct the letters which deserve the wastepaper basket. Not yet thirty, he is a millionaire who proposes to found a state in the Sahara, not on desert sand, but on an oasis said to be as large as Ireland. M. Lebaudy wants the protection of England, and his chief business here is with the Foreign Office. Lord Lansdowne is not likely to undertake the responsibility offered by this pioneer. We cannot start a new misunderstanding with France to befriend an adventurous spirit who thinks he can make his African oasis smile with peace and plenty. Politics apart, Englishmen cannot help sympathizing with M. Lebaudy's enterprise; but the best advice they can tender him is that he should make terms with his own country instead of seeking them with ours. To give up the life of Paris may be commendable enough, but to ask for the protection of England against the "cupidity" of his own countrymen is not sound policy.—(Illustrated London News.

JACK CHINN'S SNAKE STORY.

Dewitt Vanarsdall, who is in charge of Colonel Jack Chinn's fluor spar mine at Salt Spring, was in town Saturday, and though rather late in the season for snake stories, tells us one that is out of the ordinary. The mine entry is being driven in the side of the cliff about fifty feet below an old shaft sunk half a century ago by miners in quest of silver. A few days ago they reached the old shaft, and there a surprise awaited them. The bottom of it was covered with snakes of all kinds—vipers, moccasins, copperheads, blacksnakes and other varieties more or less venomous. The reptiles resented the intrusion, and it was only after a pretty lively fight that they were killed. At first the workmen thought that the snakes had gathered here to hibernate, but an investigation showed that all had fallen into the pit and had no way to escape. Many of them may have been there for years, and had fed on the quantities of toads, rabbits and mice that shared their misfortune of falling into the old shaft, but not into congenial company, as did the snakes.—(Harrodsburg Herald.

FACTS ABOUT PEAT FUEL AND PEAT COKE.

HOW TO MAKE IT, HOW TO USE IT, WHAT IT COSTS AND WHAT IT IS WORTH.

BY T. H. LEAVITT.

The prime object of this paper is to offer briefly some facts and information relating to the production, cost, use and value of this fuel—largely from my own personal experience and observation during a series of years—with other data from trustworthy authorities, which may be of practical interest to have rich and extensive stores of it.

In our own country the deposits of peat are numerous, extensive and in quantity simply enormous. New-England is full of it; the deposits in the Middle, Western and Northwestern States and in Canada are enormous. California and Mexico have rich and extensive store of it.

Its superior value for domestic, steam and metallurgical purposes is established beyond question. It requires only to be manufactured and prepared in good shape to take its place as a standard commodity of traffic and use.

The various attempts to solidify and put it into merchantable form may all be classed under two heads—pressing and condensing. Of presses, a great variety have been built, some simple of construction, others of marvellous power and perfection in every detail. The most notable success attained by this process has been in Canada, where, under pressure of two to twelve tons to the square inch, a handsome article has been produced in briquette form, which burns well and can be used for some purposes; but pressure has thus far failed to produce, and cannot by any possibility be made to produce, a perfect fuel. Water dissolves it, heat disintegrates it, handling and transportation tend to crumble it and it cannot be successfully coked. The cost of plant is large, the power required is enormous, and the product, though not without merit for some purposes, is seriously lacking in qualities essential to a perfect fuel. Our consul at Toronto writes (October 31, 1902): "Fully $400,000 has, in the course of seven or eight years, been practically wasted in Canada in futile attempts in this line."

Condensed peat fuel differs essentially from the pressed article. The method of manufacture is exceedingly simple, rapid and successful. The plant required is comparatively inexpensive; the expense of manufacture is small, and the fuel produced is, in many respects, superior to that produced by any other process.

The crude material is excavated and brought from the bog in any convenient manner. The treatment is such that the original organization of the peat is destroyed; the air, of which a large amount is contained in its cells, is ejected; its plastic and adhesive properties are developed, advantage is taken of some of the peculiar natural qualities of the material, and it is then in condition to be blocked or moulded into any form desired, which may be accomplished in a variety of simple ways. It is then exposed in the open air for drying, or artificial means may be used to expedite this.

The product is a solid, hard fuel, which burns freely with a light draught, producing steady, clear and intense heat, consumes entirely from surface to centre, leaving a residuum of light ash, but no clinkers or cinders; does not disintegrate; is as impervious to water as brick or stone; emits very little smoke and no offensive gases; is readily carbonized, producing a strong coke of superior quality for domestic, steam and metallurgical purposes.

Condensed peat may be carbonized as we do wood and coal, and produces peat coke; and it is to this fuel and the proper production of it that I desire to call especial attention, because of its superior excellence for all ordinary purposes, and for the more severe processes required in the arts.

Until recently I have never known of any peat coke being produced in this country, but during the last two years persistent and well directed efforts have resulted in perfecting a simple, practical and eminently successful method of producing this much desired fuel at a cost and of quality which render it practicable to introduce it as a merchantable article, available for those purposes for which it is known to possess superior merit.

Condensed and solidified by what is known as the Leavitt process, the coking or carbonizing is accomplished by the more recently discovered Rockwell process. The former is not patented, and is therefore free to all. The coking process is covered by patents. The gases generated from the peat in the process of coking are used for heating the ovens, and are amply sufficient for that purpose.

The quantity of coke obtainable from a good quality of condensed peat may average about 40 per cent of its weight. The high heating power of peat and peat coke and its absolute freedom from sulphur and properties deleterious to metals must commend it to all and invest it with peculiar interest to the smelter and those who follow after him as manufacturers of the metals which he produces.

Practically the same range of by-products may be obtained as from the coking of coal, and, properly managed, the working expenses of producing the coke may be recovered by the value of these.

The concurrent testimony of parties who have used peat fuel for heating, cooking and the usual variety of household purposes is that it is preferable to any other, and of peat coke that it is the "very best" fuel they have ever used. It is easily kindled, burns freely and gives a quick and intense heat; is much cleaner than coal, more pleasant to handle and easily managed for all purposes. For the sick chamber there is no fuel which yields so mild and grateful a heat as peat. For persons with delicate lungs it is especially desirable, as it produces none of the irritating effects of wood smoke or coal gas.

The superior fitness and great value of this fuel for steam service in manufacturing establishments, locomotives, steamships, etc., has been repeatedly and abundantly demonstrated, but as yet the production of it has not been sufficient to insure a constant and steady supply. It saves half the time in getting up steam, affords a quick and intense heat, with large volume of flame, and is easily regulated. The absence of smoke and clinkers, sparks and soot and the preservation of grates and fireboxes from the effects of sulphur are important advantages, while, on the score of comfort to travellers by rail, the annoyance and suffering occasioned by cinders, sparks and smoke are by the use of this fuel entirely obviated.

My own personal experience during six years while operating peat works at Lexington, Mass., was confirmatory of the statements here made. During four years I ran a 14 horsepower tubular boiler. The firebox, fitted for coal, was 32x42 inches, with grate bars three-quarters of an inch apart and eighteen inches below the boiler. I burned nothing but condensed peat of my own manufacture, and, finding that the heat generated was far in excess of what was required, the area of the grate was gradually reduced by laying firebricks at the sides and rear end, to 16x36 inches, less than one-half the original area. The fuel was never more than six inches deep on the grates—generally less. The gas generated produced a constant flame, which filled the entire space under the boiler. It burned with a very light draught, gave quick, steady and intense heat and, at the close of the fourth year, the grate bars were entirely uninjured and as good as when new.

At that time I had not learned to coke the fuel, but since doing so I have seen the peat coke used with results far in excess of what I have narrated above of my own experience. The same general principles apply to locomotive service. The fuel area should be smaller and the exhaust considerably less powerful than for coal. It can be banked and quickly started again.

Concerning peat in the manufacture of iron and steel, a few quotations from correspondence and statements at hand must suffice to indicate the estimation in which this fuel is held by practical men, familiar with the requirements and use of fuel in the important iron and steel industries: "For smelting ores, welding and annealing, softening steel plates, etc., good peat is preferable to any fuel." "For giving toughness to the metal and uniformity of chill, qualities so essential to car wheels, peat fuel is unsurpassed." "Peat coke is of still greater value than the best charcoal, and in the manufacture of iron it stands unrivalled." These quotations illustrate the character of a multitude of others of similar import.

From my own experience during six years, I consider it safe to say that it can ordinarily be produced in good shape and marketable condition for less than $2 a ton. It has been sold at prices all the way from $3 to $8 a ton. It is not too much to say that in any region where it is produced the demand will be likely to exceed the supply.

Most of the new enterprises of the age are understood to demand and require for their development and success very large preliminary outlays of money. Not so with peat; the outlay required is comparatively small, while the returns are quick, large and sure.

The men who have been, and still are, ready and eager to sink large sums in oil wells and gold mines at a distance are apparently slow to observe the wealth that lies plainly before them at home in the peat beds which multitudes pass every day. The next generation will probably wonder that this generation of enterprising men was so blind.

If, then, we have at our own doors, and in great abundance, an article of fuel available at small cost, which is equal in value and superior in quality to that which we bring from a distance, is it not plainly apparent that it affords a tempting opportunity for the creation of an entirely new productive and profitable industry, employing capital and requiring labor on a large scale and utilizing resources now lying dormant, the importance of which is beyond estimate?

TRIALS AND STRUGGLES OF WOULD-BE LAWYERS.

PREPARING FOR EXAMINATIONS WHERE A CERTAIN PER CENT ARE BOUND TO FAIL.

"Hear you're going up for the bar 'exams' next Tuesday," said one young man to another at the luncheon hour, in Pine-st., yesterday.

The one addressed gave evidence of a slight anticipatory tremble, nodded affirmatively, but abstained from reply.

"You'll hit it hard," continued the first speaker. "Eleven thousand men have done it in this city; you've been passing 'exams' all your life. It's easy."

The last words straightened the listener and made him reply:

"Easy! Listen. Sixty per cent went down at Syracuse in June; forty out of the hundred failed at Albany on the same paper, and 30 per cent of the New-York crowd will have another try next Tuesday."

"Easy!" he continued, his eyes blazing; "let me tell you. Since October, 1901, I've thrashed and rethrashed some 15,000 printed pages of textbooks, tried to learn perhaps 125,000 words of typewritten notes my school gave me, served sixteen months' duty under a lot of professors, filled eighteen notebooks with law, as I understood it, and read and reread perhaps 2,000 cases."

The speaker wiped the perspiration from his forehead, while the listener, commenting, told him he deserved to flunk for such self-abnegation in study.

"I've been attending special quizzes from 8 to 10 o'clock at night for a month, and shall keep it up till to-morrow night; I've been at it from 5 to 7 o'clock every night for a month, finding out what I had forgotten about the law, at another special quiz with a pal. Seems easy, doesn't it, with all day hard plugging at the office?"

"Insinuation withdrawn," answered the layman. "But how is it there are so many get through, only ordinary men?"

"Nobody knows. The bar 'exams' in New-York are queer things. The first prize man at Harvard went down recently, while the office boy in the same office passed with flags flying. They seem to forget that we have a code here—1,000 pages that must be read over half a dozen times. New-York law isn't Massachusetts law—they disagree constantly. That's why men who study in New-England fail when they come here for the 'exams,' while most of those from the New-York schools go through in good shape.

"I know two prize fellowship chaps, picked for scholarship, ability, character and all that, $500 year men, payable quarterly, who went up, but weren't allowed in the Appellate Division a month later to be sworn in. One of them began at 8:45 o'clock. He saw the twenty-five questions; his head was so filled with theories, so jumping with law, that he couldn't for the life of him answer a specific question with coolness. Then, at noon, when he should have been storing away a great big meal, he sat on a curb reviewing, reviewing, until his time was up. Before he got through his second set of twenty-five questions, his grip failed him and he went all to pieces. Result, mother and sister in tears, the prize man humiliated and his office silent.

"On the other hand, many youngsters, deprived of college education, have drearily waded through Latin, arithmetic and geometry for the Regents' 'exams,' have served long terms in offices, and, on the day of the test, have made good; have passed in wonderful papers. Of course, the college man wins most often, but he is hard pushed by the Regents' student.

"Why, the ordinary person has no conception of what it means to get admitted to the bar," continued the neophyte. "Take a college man, accustomed to hard study and to periodical accountings therefor; he enters law school with a cynical attitude toward his teacher's bench and is patronizing in his manners toward his fellows. He takes up elementary and preparatory topics before abstruse things, and the ease with which he assimilates facts such as 'a man must be legally married' strokes his pride satisfactorily. He finds the study of contracts or real property once begun is pursued continuously—only one subject a day bothers him—his mind is kept fresh. All is arranged for him; he does not have to classify or arrange; subjects are reviewed for him; he merely has to listen. Reasons and principles, reported cases and decisions, mostly interesting tales of human fallibility, are explained, and he enjoys such stories. He puts off his accessory reading; he postpones the knack of getting the principle which underlies each decision.

"In other words, for the first few months the average college man jokes over his law courses, reclines over two chairs in recitations, dozes shamefully and hacks up the furniture with facsimiles of his fraternity pins and college pennant. Late fall is the heyday of golf fields, and the Polo Grounds and nearby campuses have football to be watched.

"But gradually the change comes. The student finds that law requires peculiar concentration and constant attention; rules slip all too quickly from even the trained mind. He is in his seat before his professor sits; he wants the windows opened to clear the air, to abet his quickening interest and understanding. He stops cutting his initials on the chair arm. His pipes go down to three a day.

"Down through the uneven lanes of domestic relations, criminal law, torts, agency, partnership, negotiable paper, guaranty, bailments, mortgages and personal property he goes, each day establishing to his own satisfaction his belief that he has much yet to conquer. By and by he tackles remainders, reversions and devises, uses, trusts and kindred unhappinesses; net result, later hours, weary eyes and profound respect for the law as such.

"When he encounters substantive law in his second year, when he wrestles with the principles in respect to rights, interests, estates and obligations and the reasons on which such principles rest, then he is learning procedure, and breaking his peace of mind over evidence, pleading and practice. Then it is that he ravels and tries to unravel the heartless intricacies of the civil code, a tome without spirit, forbidden, uncompromising.

"So the college student reforms his smug ideas of his sufficiency; so he learns what study really is, how a real headache may be had over Shelley's case, how Hadley vs. Baxendale and Lawrence vs. Fox run away from one on the placing by of the book for a night's rest. Through equity, insurance, wills, constitutional law, corporations, admiralty and the code he labors, stiffens for his second year's degree 'exams'; passes, flushes like a grammar boy over his diploma and then prepares for the bar.

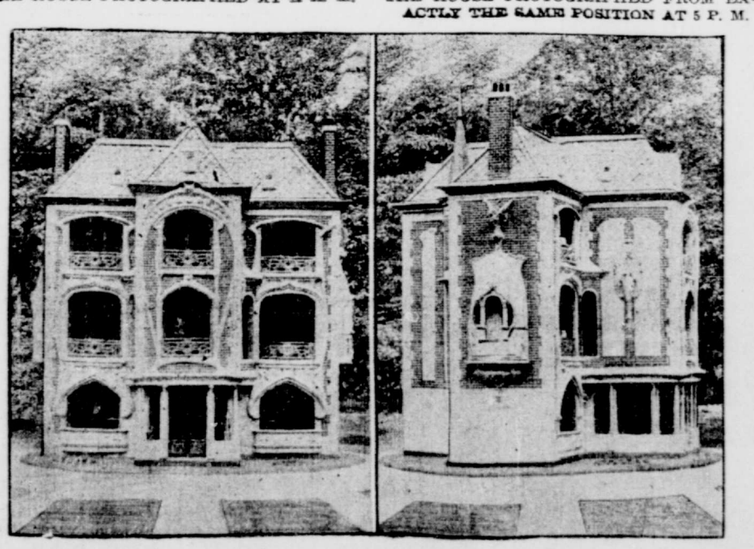
"Rumors of papers necessary to be had and filed worry him little; he has a degree; he is nearly a counsellor at law, and so on. At this point his peril is greatest. I know several chaps who weren't allowed up last June simply because they were two hours late in filing their affidavit of citizenship, etc., their college certificate of graduation, their Board of Regents' approval thereof and their law school certificate of attendance. Then there was another fellow who worried his head off for a week, and finally had to telegraph friends in Albany to help him adjust matters, at a net cost of a pretty little sum. Why, a man has to be a lawyer to draw up his papers properly. Affidavits are thrown out ruthlessly; it is the fit who survive. He feels admitted who is allowed simply to take the 'exams.'

"Now, day after to-morrow, a crowd of us are going up—sixty out of the two hundred to fail. Those who keep steady will have a grand time, say, election night; those who are ploughed under—well, they may celebrate, too.

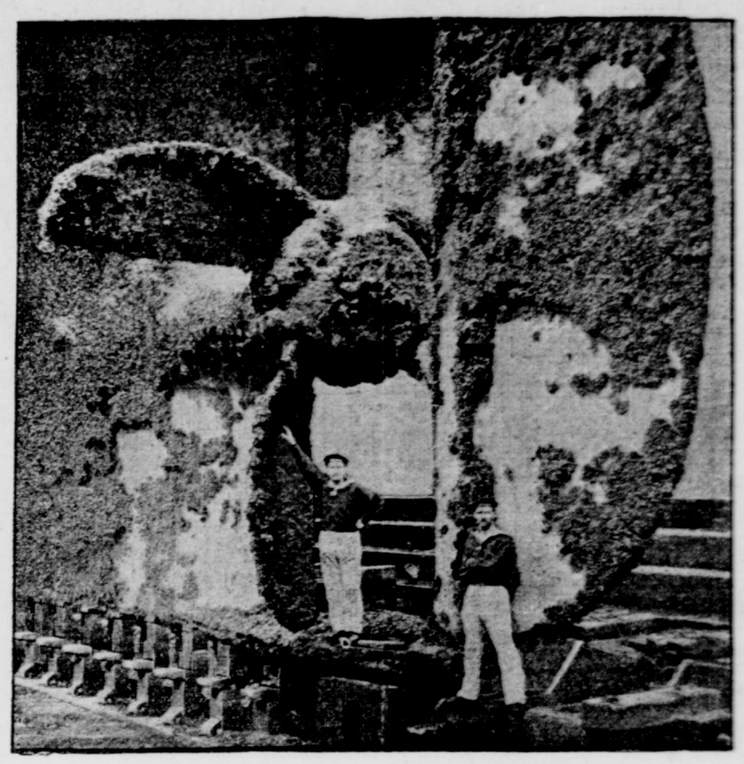
"Perhaps a month later, if we can get any one to certify as to our natural disinclination to stealing watches, to our consistent probity, ingrained honor and self-respect, we who win shall be invited to a nice little party in the Appellate Division, there to receive our license to make an honest living, to enter at the gates of a lifelong, age old profession which we venerate."

A HOUSE THAT CAN FOLLOW THE SUNSHINE.

THE HOUSE PHOTOGRAPHED AT 11 A. M. THE HOUSE PHOTOGRAPHED FROM EXACTLY THE SAME POSITION AT 5 P. M.



A Parisian architect, M. Eugène Petit, has devised a house, revolving on a central pivot, which can be turned mechanically so as to follow the sun. These buildings are extensively used for the sun cure. The principle is that of the turntable. Two men can easily effect the movement. The introduction of water, gas and electricity is ingeniously contrived.—(Illustrated London News.



BARNACLES ON A WARSHIP'S KEEL.

The German warship Frederick the Great in drydock for a scraping. Those who are not familiar with dockyards will realize from this view, just taken at Kiel, the necessity of cleaning the hulls of steel vessels. It can easily be imagined how the speed of a vessel is reduced by the increased skin friction of the mass of barnacles. The barnacles are living crustaceans which fasten themselves on the vessel's side by their heads and kick their food into their mouths by a bunch of jointed appendages which dangle in the water and fasten on to any passing food. Great clusters of these living colonies have fastened on to rudder, propeller wings and hull alike.—(The Sphere.

STANLEY SPENCER.

Stanley Spencer, whose elongated motor balloon has convinced even doubters of the ultimate possibility of practical aerial locomotion, belongs to a family of aeronauts distinguished through three generations. Stanley Spencer first attracted attention by his parachute descents from the roof of Olympia, and, soon after his exploits both as parachutist and balloonist in different quarters of the globe, made his name famous. Sometimes ascending by the use of hydrogen, and at others by hot air, Mr. Spencer was, in 1898, Dr. Berson's colleague in the ascent of 27,500 feet, when only by inhaling oxygen the adventurers were able to keep life going. After the retirement, owing to the injury to his machine of M. Santos-Dumont, Stanley Spencer undertook to construct an airship which should rival that of the wealthy Brazilian, and all London has seen that he has had a fair measure of success. The difficulty of navigating a necessarily bulky object like a balloon against a wind of any force is, there is no mincing the matter, not yet overcome; but the aeronaut, whose portrait we give, has certainly come as near to attaining this desideratum as any one hitherto.—(Illustrated Sporting and Dramatic News.

NEW NAVY PRISON.

A Model One Now Planned for Portsmouth, N. H.

The Navy Department has long felt the need of a building for prisoners under sentence, and plans have been drawn and approved for one at Portsmouth, N. H., which provide a most suitable interior arrangement for the comfort, security and health of men in confinement, as well as for the convenience and comfort of the officers detailed to take charge of such an institution. The site selected is on a high elevation on Seavey Island, near the Navy Yard, overlooking the river and the city of Portsmouth.

The building is to be of brick, with stone trimmings, the interior of which is to be of steel and concrete construction, thus guaranteeing absolutely a fireproof structure. The administration building will be 76 feet square and about 126 feet in height. There are to be two wings, each about 200 feet in length and 52 feet wide, containing the cells. The entire frontage will be 602 feet. The method and arrangement of the prison proper will be of the most approved style, making escape practically impossible, and will have accommodation for 640 persons. That escape may be impossible by digging and tunnelling, the main floor is to be of stone concrete reinforced by two layers of metal. The cell blocks will consist of 320 cells each, divided into four tiers in two rows separated by a 1 foot space for ventilation, increasing in size at the intersection of each four cells for the water and plumbing pipes.

The dimensions of each cell will be 6 feet 8 inches wide, 11 feet long and 8 feet high, with a window barred with gratings nearly at the top of the cell. A corridor about three feet wide will surround each tier of cells, excepting the first tier, which will be surrounded by the first floor exercising corridor. The corridors will be connected by a double stairway at each end of each tier, and both stairs and corridors will be inclosed by gratings. Access from each corridor will be made into the administration building by grated doors, so that the prisoners will be under the surveillance of the guards at all times.

The floors, walls and corridors will be of steel and concrete construction, thus insuring the best of sanitary conditions. The fronts of the cells will be constructed with gratings and sliding doors and the turnkey standing at one end of a block of cells can, by a single operation, unlock every door in the block, or each door can be locked or unlocked separately. Each cell will be provided with a wash basin, and a steel swinging bunk at the side. On the basement floor will be a shower bath accommodating eighty men at a time. On the same floor will be the sick ward, with bathrooms, laundry, kitchen, bakery, the storeroom for supplies and two bedrooms for firemen.

A YEAR WITHOUT A SUMMER.

Remarkable Record for 1816.

While every one is speaking of the present season as being remarkable in its characteristics, I have gathered for your readers some reliable facts of the year 1816, known as "the year without a summer." Few persons now living can recollect it, but it was the coldest ever known through Europe and America. The following is a brief abstract of the weather during each month of the year:

January was mild, so much so as to render fires almost needless in parlors. December previous was very cold.

February was not very cold, with the exception of a few days it was mild, like its predecessor.

March was cold and boisterous during the first part of it; the remainder was mild. A great freshet on the Ohio and Kentucky rivers caused a great loss of property.

April began warm, but grew colder as the month advanced, and ended with snow and ice and a temperature more like winter than spring.

May was more remarkable for frowns than smiles. Buds and fruits were frozen; ice formed half an inch thick; corn killed, and the fields again and again replanted until deemed too late.

June was the coldest ever known in this latitude. Frost, ice and snow were common. Almost every green thing killed. Fruit nearly all destroyed. Snow fell to the depth of ten inches in Vermont, several in Maine, three in the interior of New-York and also in Massachusetts. Considerable damage was done at New-Orleans in consequence of the rapid rise of the river. The suburbs were covered with water, and the roads were only passable with boats.

July was accompanied by frost and ice. On the 5th ice was formed of the thickness of a common window glass throughout New-England, New-York and some parts of Pennsylvania. Indian corn was nearly all destroyed; some favorably situated fields escaped. This was true of some of the hill farms of Massachusetts.

August was more cheerless, if possible, than the summer months already passed. Ice was formed half an inch thick. Indian corn was so frozen that the great part of it was cut down and dried for fodder. Almost every green thing was destroyed, both in this country and in Europe. Papers received from England state "that it would be remembered by the present generation that the year 1815 was a year in which there was no summer." Very little corn ripened in the New-England and Middle States. Farmers supplied themselves from corn produced in 1815 for the need of the spring of 1817. It sold at from $4 to $5 a bushel.

September furnished about two weeks of the mildest weather of the season. Soon after the middle it became very cold and frosty; ice formed a quarter of an inch thick.

October produced more than its share of cold weather; frost and ice common.

November was cold and blustering. Snow fell so as to make good sleighing.

December was mild and comfortable.

The above is a brief summary of "the cold summer of 1816," as it was called, in order to distinguish it from the cold season. The winter was mild. Frost and ice were common in every month of the year. Very little vegetation matured in the Eastern and Middle States. The sun's rays seemed to be destitute of heat throughout the summer; all nature was clad in a sable hue, and men exhibited no little anxiety concerning the future of this life.

The average wholesale price of flour during that year in the Philadelphia market was $13 a barrel. The average price of wheat in England was 93 shillings a quarter.—(Correspondence Boston Globe.