THE OMAHA DAILY BEE: THURSDAY, JULY 28, 1898.

are turned out to one side of the tube into

the eye piece. The essential difference between the Peate and the Yerkes lenses is

not only one of size, the former having a

TELESCOPE

Tending Skyward.

FIRST LENS MADE ENTIRELY IN AMERICA

Larger Than the Yerkes Lens by Twenty-Two Inches - Destined for the American Untverity at Washington.

hands. In the little town of Greenville, Pa., lives a man who can now claim the honor of having made the largest silver-on-glass telescope lens in the world. The man's name is John Peate. He is a retired Methodist preacher and this is his first attempt at telescope building. It has been entirely a labor of love with him, for the great lens was built for the use of the new Methodist university in Washington and is soon to be mounted there.

The new telescope is interesting, not only because its lens is the largest in the country, but because of the eccentric character of its builder and the fact that he devised less piece of glass, and when duly polished It was while the great lens was resting in most of the machinery for his delicate work ooked more like a pool of limpid spring its carrying case that he conceived the idea as he went along. He retired from the pulpit several years ago and is now 78 years of age. His erect, stalwart figure and snow-white beard are familiar all through western Pennsylvania. In spite of nearly four-score years Dr. Peate is still as active as a boy and he recently walked twenty-seven miles in a single afternoon without minding it at all. In the winter he may be seen almost any fine day on the

Shenango river, swinging along on skates with a swift, muscular stroke that is the envy of the town boys. He is known all over this part of the state and his shrewd, common sense sayings are quoted all through the Shenango valley.

John Peate was born in County Cavan Ireland, and his conversation is still flavored by a fine quality of Irish brogue and marked by Irish wit as keen as when a lad in his teens he landed in America and sought employment at the trade of bricklaying.

While a young man he was converted at a Methodist revival, left his trade, took to preaching and became one of the clergymen and later on a presiding elder in the Erie conference. About fifteen or twenty years ago he became interested in the making of lenses, through Dr. Wythe, a fellow pastor, and since then has devoted all his sparmoments to that work.

From first to last, excepting such little information as he got from Dr. Wythe, and some slight technical instruction from John A. Brashear, the Pittsburg lens maker, Dr. Peate has relied upon his own skill and inventive ability in the per formance of his delicate work.

Dr. Pente's Offer.

Nearly four years ago, at the annual meeting of the Methodist Episcopal confer ence, to which Rev. Peate bears a supernumerary relation, Bishop Hurst presented a plea for the support of the American university and told in such glowing phraseology of the hopes and prospects of the school that the clergymen were deeply impressed. At the conclusion of the bishop's appeal Rev. Peate arose and quietly offered to make for the university the largest reflecting telescope lens in the world. The bishop and clergymen present knew that Dr. Peate had been successful in the making of several small lenses and other optical glasses, but the suddenness and magnitude of his offer for a moment embarrassed The offer was so remarkable them all. that it took the hearers by surprise. The venerable man. He knew him. "In what

time will you do it?" he asked. "In two

BUILDER plich and rouge or emery used to grind and transportation of a "parcel" from Green- and the reflected rays falling on a small With this single tool, weighing 900 pounds, ter from Bishop Hurst, head of the school, Dr. Peate in the late summer of 1895 began the formidable task of reducing the rough soon as convenient. soon as convenient. He is a Preacher with Mechanical Talents surface of his great glass. At first simply hard work and no great skill was required,

but as the glass wore down close to the figure in which it was to be finished the work became less severe physically, and began to tax more closely the ability and perfect polish. manipular skill of the maker. After the

the lens and outside of that he bent two rough grinding had reduced the glass to that point where great skill and technical other iron bands, the ends of which pass knowledge began to be required, Dr. Peate up through the top edge of the case, where dispensed with the services of the man he they are securely riveted. By this means had had to help him and the remainder of the glass is kept constantly vertical and that is available, in definition and in perthe work was done entirely with his own literally hangs in its case, having enough play on padded cushions to escape the The glass gradually became so severest jar. The whole case is mounted on

finitely delicate that the slightest change a wheeled truck that allows of its being in the temperature affected it. During the handled with ease. However, a delay has occurred because of first winter after polishing was begun only the fact that the express company has no nineteen hours were devoted to actual work upon the glass, and the succeeding winter office in Greenville and the glass has not even less time than that. The total num- yet been shipped. After every known optical test has been

Transporting the Lens,

ber of hours work on the glass from the start to the finish was something under 700. given a telescope lens while it is being And yet to complete it required nearly the made there is one final and best one that full two years which Dr. Peate pledged the can only be made when it is completed. bishop at the conference. The lens, which That is to search the sky with it. Dr. Peate is 62 inches in diameter, 5 3-8 inches thick has twice put his glass to that final test and weighs 1,500 pounds, is a perfectly flaw- and has twice proved it optically perfect.

diameter greater by twenty-two inches than Accordingly the glass was packed with the latter, but also of principle, the Peate glass being a reflector and the Yerkes a even so much as a pin scratch matring its refractor. In other words, the heavens are seen in the Peate lens, and through the Yerkes. Reflectors are superior to refractors in ease of construction and cheapness, in possi-

ble size and in perfect achromatism, but they are inferior in the amount of light manence or durability. Reflectors are su perior in one most important branch of modern astronomy, namely: spectroscopic investigations of the sun, stars and nebulae, including photography, in which respects a reflector, because of its absolute freedom from color, is far superior to a refractor. Dr. Peate's mammoth speculum is exceeded in size only by the metallic one in Lord Rosse's famous telescope at Birr Castle

Parsonstown, Ireland, which is six feet in diameter. It is not in use, and Dr. Peate's may be considered as the largest in the world, insofar as service is concerned. SOME QUEER LEGACIES.

Conditions that Have Been Attached to Wills.

Here are some amusing particulars of legacies with strange conditions attached. Early last year a peculiar probate suit, involving some \$500,000, was imminent, the disinherited relations wishing to upset an old gentleman's will because he had left the sum named to found and endow a church on the condition that every Sunday before the service the whole of the thirty-nine articles were to be read by the clergyman outside the church door.

A strange condition was attached to the egacy the late Sir Edward Bates, who died last year, left to his married daughter. He stated that he had seen his son-in-law's Scotch property, and he considered it would be a gross injury to his daughter and her children, considering "there are no neighbors within miles, and there is no medical man within six or seven miles," if she lived there any considerable time. So he arranged that, if his daughter stayed more than six months in any year, "and those six months not in winter," at that spot, the income derived from the legacy for twelve succeeding months should go to the residuary legatee.

During this year a gentleman who die at Mons left a legacy of \$3,000 to five friends, the money to be spent on dinners served in different restaurants, and at each meal a certain dish to be eaten, and a certain wine, of which he was very fond, to be drunk. Futhermore, his memory was to be toasted at dessert, the five companions were to dine in black clothes and gloves and enter the room preceded by a flag and the music of an accordion.

A wealthy gentleman recently left his so a large fortune on the condition that he shall visit every country in the world, and write a book on what he sees. This work is to be submitted to professors of Bonn and Heidelberg universities, and if in their opin ion it is dull and stupid and badly written the heir has either to write it over again of lose the fortune.

Some years ago in France a maiden lady lied who had been for many years a habit ual snuff-taker. She left directions in her will that her coffin was to be filled with to pacco, that the mortuary chamber was to be carpeted with it, and that tobacco was to be scattered before the hearse that conveyed her to the cemetery.

DANDIES OF MANILA.

Deweyville. The costume of the Manila dandy, ac-

A CONFESSION.

CHICAGO, ILL., June 3d, 1898. Messrs. Hiram Walker & Sons, Limited.

Being under indictment by the grand jury of Cook County, Illinois, charged with having put up and sold American whisky as your "Canadian Club" Whisky, the bottles, labels, capsules, etc., being imitations of yours, my wife has appealed to you to take into consideration her unhappy position and that of our young children. This you have consented to do upon the following conditions:

I.-That in the public interest I shall not go wholly unpunished.

2.-That I shall solemnly pledge myself never again to be a party to the imitation of any goods whatever, whether yours or those of others, and should I violate this promise the present indictment against me shall be revived and prosecuted.

I accept these conditions without any reservation. I admit that I am guilty as charged under the Illinois Trade Mark Act of having imitated your labels, capsules, etc. As some reparation I consent that this document may be published in trade journals, newspapers, etc., as may seem to you proper in your own interest and for the ends of justice; I promise to forever abandon all connection with the production or sale of goods to my knowledge falsely labelled or described; and I agree that should I fail to keep this promise the above mentioned indictment against me may be reinstated.

> (Signed) CHARLES KLYMAN.

Witness: Russell Whitman.

[NOTE-Mr. Klyman until lately carried on business at 232 East Kinzie Street, Chicago, in his own name and as the Dr. Ancker Bitters Co.]





bishop looked into the face of the erect and were applied to it in the course of its final the face of the big mirror at which its rays polishing. of reflected light are focused. He had next By means of an ingenious mechanical constructed a thirty-two foot wooden arm years," propmptly responded Dr. Peate. His device, the table on which the lens lay was made like a huge crutch. The open ends

infinite care and every safeguard to prevent Dr. Peate had an iron band clamped about

offer was accepted soon afterwards and the conditions fixed by the university authorities were that Dr. Peate should do the work, the school to bear all expenses. No limitations were set to the latter. Dr. Peate lost no time upon his return home. His first concern, of course, was to get the glass in the rough. That was an enormous task and the difficulties encountered were sufficient to have thoroughly disheartened any but the sturdlest spirit. He could have ordered the glass from the St. Gobin works in France, where for centuries al-

most all large telescope lenses have been cast, and whose expert workmen have been regarded as the only men in the world competent to undertake any great piece of casting. The expense would have been enormous, and although given carte blanche by the university authorities, Dr. Peate has endeavored to keep down to a minimum the cost of making his big lens. Getting the Big Glass.

Another consideration entered into his plans. Since the work was being done for the American university it was a matter of pride that no part of it should be done outside of this country.

Acting upon this determination Dr. Peate made proposals to several of the largest glass manufacturers in the United States, that they undertake the casting of his big glass. Here he met his first rebuff. Not one of the concerns to whom he offered the task would take it. Their overt reasons for refusing were that it could not possibly be done, but covertly they let it be known through their trade journals that they regarded the whole undertaking of the of the big lens appeared effulgent with a venerable clergyman as the visionary mellow light, like the surface of the full scheme of a crank.

Dr. Peate then turned from the big concerns to the smaller manufacturers, who doctor. "That is a bump caused by the exhad much to gain if the cast should be suc- pansion of the glass under the heat of my cessful, and nothing to lose in case of thumb. It is less than one fifty-thousandth failure. He went to Butler, Pa., Bixty of an inch high and yet you see it with the miles from Greenville, and got a plate glass little point of light that escapes through company to agree to make the attempt. Four times the molten glass was poured impossible to measure it or detect it in any into the great mold unsuccessfully, but the other way than by this simple light test fifth cast was pronounced perfect.

In the meantime Dr. Peate had built according to his specifications a workshop for the accommodation of the glass when it point at which the light reflected from the should be transported from Butler. The glass collects. It is by this test that I know carpenters who built it were good Meth- whether my glass is too high or too low odists and would take nothing for their

labor. The bricks of the chimney were laid by Dr. Peate himself. The only cost the darker than the rest of the surface, where workshop entailed upon the university was in polishing that afternoon he had left the for the lot and material, and it is worthy glass raised about one one hundred-thou of note that this small, unpretentious sandth of an inch.

structure was the first building erected by national capital.

from Butler and placed in the main workthem what was known as "local" polishers; which were loss of time and the constant into irregularities.

Home-Made Tools.

The grinder Dr. Peate constructed is a metal disc the size of the glass to be ground nothing was done to have the glass reand in which the convexity corresponds moved. Finally Dr. Peate, who is a man into the thousands of dollars. Telescopes inversely to the figure desired on the glass. of prompt action, wrote to the chancellor of to be mounted as this one are called New-The surface of this disc is cut up into hun-dreds of small facets, no two of which are longer wish to have the responsibility of of interior arrangement. exactly the same distance from the center. caring for the delicate glass. A reply Unon these facets is spread the mixture of came in the form of an order for the free

of this he placed on either side of the glass turned up so that the glass rested perpendicularly on one edge facing into the testand the other closed end was raised to the top of the scaffolding. On it he placed the ing room, a low-ceiled narrow gallery about 100 feet long, that projects from the rear eye-piece, through which the focused light of the primitive workshop. Preparatory is admitted to the eye. Then, tilting the glass back as far as he could one starry to making any of the tests, Dr. Peate opened the big door at the far end of the |night a few weeks ago, the venerable astrongallery. A flood of light poured in and omer climbed up his rickety scaffold and suffused itself over the polished surface of the great mirror, which reflected back with topmost round of the ladder, studying the startling clearness and brilliancy every blade of grass and passing cloud without. ing of his precious mirror.

Testing the Big Lens.

All the tests to which the lensmaker subjected the glass were very simple ones, but embodied the most exacting optical principles, whereby the perfection of a speculum may be determined with infinitesimal accuracy. For the first one, Dr. Peate went up to the lens, and placing his thumb upon it requested the correspondent to note when he had held it there fifteen seconds. The time up, he came back about sixty-five feet to a small table on which was a common oil lamp, a cylindrical tin tube and a small standard supporting vertically a brass ferrule. He lighted the lamp, placed the tin tube over it, turning it so that only the light from a hole in the side, smaller than a pin point, shone on the glass. He then sat down back of the table and shifted the lamp and ferrule about until their adjustment seemed satisfactory. He arose and mo tioned me to take the seat, directing me to close one eye and look past the edge of the ferrule with the other. After a moment of searching for the optical point, my eye sud denly caught a gleam and the whole surface moon. Near one edge was a small dark spot. "Do you see that spot?" queried the hole too small to accommodate a pin. It is You are seated at the radius of curvature

and the straightedge is merely an assistance to your eye in finding and keeping the in places."

He then pointed out a spot just a shade

The next test was one of striking beauty the institution whose colleges are now be- and illustrated the wonderful sensitiveness ginning to raise their stately roofs in the of the glass. Dr. Peate walked forward have had since I began the study of astron- servant has forgotten to dress himself!"

engine, which also furnished the power to presence of even a moderately warm body for me to turn the glass on any familiar the crane that hoisted and lowered the mas- near it affects it thus and so does a differ- star or on the young moon. I could only began the making of telescope lenses there | ture with the atmosphere or its surface be- | empty to the human eye and even to a fairly had been in use for grinding and polishing comes so disturbed that I cannot give it an powerful glass. I saw numerous beautiful cards accurate test. That is also one reason why stars. It was a splendid panorama, for not boots. that is, small grinding or polishing surfaces it takes so long a time as two years to com- being able to move my glass, I had perforce are, manipulated over the face of the glass. plete it and explains why I could not work to be content with watching the heavens into These had many disadvantages, among on it more than a few hours last winter." For some months past the glass has lain star after star." danger of reducing the surface of the glass on its revolving bed in the little workshop awaiting orders for its disposition from the ediy be called, will be mounted as an equa-

heads of the university at Washington. Dr. torial in a tube something over thirty-two Peate notified them of its completion, but feet in length.

trousers and a shirt. The latter may be more or less of the cut familiar to us, when made of white calico, but the front is elaborately embroidered, tucked or frilled, and the center of the back falls in full kilts, unconfined by the trousers. "Camis: fuera" (shirt outside) is the local term for this native fashion, which greatly scandaduring four hours sat uncomfortably on the lized an elderly English lady on her arrival in the Philippines. "Emily, my dear, don't heavens and searchingly noting the work- look!" she exclamed to her daughter in a horrified whisper, when the costume first

machinery, agricultural implements, tools of all kinds, bicycles, typewriting machines and novelties sell cheaper in Berlin today than similar articles of German make.

against Spain!"

Another very sore and tender subject is the sugar question, the mention of which to most Germans is like waving the proverbial red flag before an excited bull. There is also a feeling against the United States fostered by the agrarian party, composed of the nobility and large land owners, whose sons, sons-in-law and other male relatives are officers in the army or officeholders in the civil service, who have to be largely supported by their fathers. They are against us because the importation of American food stuffs depreciates the price of their own products, lessens their incomes and makes it more difficult each year for them to properly maintain their uniform-wearing relatives. Still another encouragement to a hostile feeling is the fear generally shared

growth and greatness of the American republic is a menace to all monarchies. Although nothing has occurred to change any of these facts, the question of German sympathy in the present war, if propounded today, would require a different answer. The Germans now want America to win, not out of sympathy, but out of self-interest. Personally the kniser wants to see us win. German sentiment is veering to the side of the United States for another reason-be cause the United States is winning; in a big military nation, as in a big crowd or a big school, there is very little sympathy with the under dog. All considerations of interest and of admiration for sturdy fighting (which are of the greatest weight in Germany) lead the kaiser's subjects to take a more favorable view of American success than they were disposed to hold some weeks

ago. A German Editor's View.

To the question in writing: "Will you tell me about the German attitude toward the United States in this war, and whether it is true that the kaiser is hostile to American interests in the far east?" a leading south German editor sends the following reply; "Your American press infers from articles gathered from English and French sources, so far as I can see, that the German papers are one and all on the side of Spain. This is not correct. Certainly one meets a pronounced sympathy for Spain, but only in very narrow-minded, conservative circles. composed of those who see in the attack of your great republic upon the Spanish monarchy a direct offense against 'royalty by the grace of God.' But this is a minority sentiment. Generally speaking, we think much more practically here. Our emperor said once in another connection, 'Blood is

thicker than water,' and this sentiment applies here, too, for how many and how close are the ties of race and family and community; how many the connections of a personal nature that lead from us across the water to your country? Especially is this the case of west and south Germany, for after the revolution of '48 a vast percentage of the residents crossed the Atlantic to the United States. It is a notable fact that in these sections the sentiment of sympathy for the United States is strongest

"In regard to the disposition of the Philippines, there is no very decided feeling for up

or against the United States. But we have lately acquired a peculiar trait of becoming hidders when any part of the world is to be divided. In the past we have lost many opportunities. It is not likely that we will do so in the future.

"Allow me, in closing, to call attention to PARIS, July 27.-The Courier de Soir says a recent article in the officially-inspired that the council of the Legion of Honor has Rhenischer Kurier on this subject of

> "By permanent settlement in the Philip pines the United States would come into the

The mirror is perpendicular to the axis and, who is understood to be in Switzerland. | Europe, namely, England, Russia and suffering from an attack of the measles.

Not a War for Humanity. When the same question of German sentinent was submitted to a prominent Berlin manufacturer, who employs many hundred

workmen in his factories, he answered: Over nine-tenths of our people share the kaiser's opinion in his policy of the strictest neutrality. There is no sympathy in Germany for noor priest-ridden and degenerate Spain, and our interests as well as our sympathy naturally tend toward the United States. We cannot, on the other hand, shut our eyes to the fact that our American friends are waging an unjust war. We laugh at the pretext of a war for the sake throughout continental Europe that the

of humanity. We know that there would have been no rebellion in Cuba or that it would have been suppressed by Spain except for American sympathy and support. It may go hard with Spain in the end, but that is no business of ours, and the eraperor. understands German interests too well to risk a single pfennig for the sake of one side or the other. If he could impose peac on both combatants, no doubt he would, for peace is a pre-eminent German interest." My third informant wears the emperor's uniform, is of high rank and of the privi-

leged entourage of the inner hof or court tircle. He said: "I do not think there are en men in Germany to whom the kaiser has expressed a personal or political remark on this war between Spain and the republic. All that you read and all that you hear on the subject must be believed only after a very great deal of deduction has been made, for you can rest positive that the emperor has not made a single utterance where it could possibly find its way into publicity. This, however, is certain and sure, his majesty is very fond of Americans, he shows it on every occasion, and he has never made any attempt to conceal it.

I know that at Kiel he made the most minute and technical examination of your war ships, that he was enthusiastic in their praise and prodigal in his praises of your marine officers and sailors. It is a well known fact that your American navy has no better friend than our kaiser and that this friendship dates from the visit of the fleet to Kiel. Besides the royal family, I do not think his majesty knows, or cares, for fifty people in all Spain. 1 am no "politiker" and cannot tell you anything about the war or the Philippines.

FRITZ MORRIS. -----

It warms you in the winter, cools you in summer and is good at all times, Cook's Imperial Champagne.

More Treasure from Kiondike.

SEATTLE, July 27 .- The Rosalie, the fourteenth treasure boat during July. arrived from Lynn canal. The City of Kingston brought in the passengers of the Canadian steamer Athenian, which makes the fiftcenth arrival. It is estimated that over \$300,000 in Klondike valuables reached Seattle through the two channels. This in creases the total gold importation this month to \$9,811,600. 'The Rosalie's passengers came from Rink Rapids, over the Dalton trail. They report that a stampedo was being made to Indian river, owing to the discovery of rich diggings on the branches. The cleanup on Dominion and Sulphur creeks had been completed and was so favorable that claims were selling at from \$25,000 to \$40, 000 each.

Receiver for a Paper Company,

DENVER, July 27.-Judge Riner of the United States court has appointed Francis T. M. M'Enery receiver of the Denver Paper company. The creditors agreed upon this action as a means of recovering amounts due. The company's assets are worth more than \$1,000,000. Its liabilities are \$580,000 Nearly all held in New England and the middle states.

Young King Has the Measles. viction on the charge of an alleged libel on closest vicinity not only of Japan, but also LONDON. July 27-A special dispatch the members of the Esterhazy court-martial, of the interested great powers of from Madrid says the king of Spain is



Masonio Temple, Chicago, Ill.

COOK REMEDY CO.



MADE ME A MAN AJAX TABLETS POSITIVELY CURP ALL Norrous Discass-Foiling Mom-ory, Inpotency, Sicepleannes, etc., caused by Abuse or other Excesses and Indig creatories Vinitiz is old or young, and fit a man for study, braicess or marriage Present Linsanty and Commonton it later in these threads and the fit of the the provide the second of the fit of the the indicating the generator of the fit of the same current the content of the fit of the have current the content of the second of the second internation guarantee to content on the second internation guarantee to content on the second of the second internation guarantee to content on the second of the second internation guarantee to content on the second of the second internation guarantee to content on the second of the second internation of the second of the second of the second of the second internation of the second of the second of the second of the second internation of the second of 50 CTS. live written guarantee to effect a ach case or rafund the moner. I ackage; or six plots (ful) treat True AJAX REMEDY CO.. For sale in Omana, Net., by sa. Forsyth, 200 N. 16th, Kuhn & Co., 16th and Douglas, and in Council Bluffs by O. H. Brown, Druggista.

DR. MCCREW SPECIALIST Treats all Forms of **DISEASES AND** DISORDERS OF MEN ONLY. 20 YEARS EXPERIENCE cars in Omalia, free, Back free, Office 14th & Farnam Sta. Box 766. OMAHA. NEB



The children, boys and girls, on gala days, made quaint little miniatures slowly pass across the surface of the mirror, their elders, though ordinarily their costumes are either of the simplest kind, or The Peate lens, for such it will undoubtconspicuous by their absence.

Deprive Zola of His Decoration.

The cost of so mounting it will run up erased the name of M. Emile Zola, the America and the Philippines:

novelist now under sentence of a year's imprisonment and a heavy fine, after con-Operation of the New Telescope.

slippers for patent leather