

ODD TELESCOPE BUILDER

He is a Preacher with Mechanical Talents Tending Skyward.

FIRST LENS MADE ENTIRELY IN AMERICA

Larger Than the Yerkes Lens by Twenty-two Inches—Destined for the University at Washington.

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 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. The fact that he is a preacher and a farmer, and that he has turned to the study of mechanics 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.

Dr. Peate's Offer.

Nearly four years ago, at the annual meeting of the Methodist Episcopal conference, to which Rev. Peate bears a super-numerary 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 clergyman was 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.

Testing the Big Lens.

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.

Home-Made Tools.

pitch and rouge or emery used to grind and polish. With this single tool, weighing 500 pounds, Dr. Peate in the late summer of 1895 began the formidable task of reducing the rough 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 manipulative skill of the maker.

The glass gradually became so infinitely delicate that the slightest change in the temperature affected it. During the first winter after polishing was begun only nineteen hours were devoted to actual work upon the glass, and the succeeding winter even less time than that.

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

water than a great telescope lens, destined to search the heavens for new planetary bodies. No better idea of the nicety with which the glass had to be handled can be had than by a description of some of the tests that were applied to it in the course of its final polishing.

By means of an ingenious mechanical device, the table on which the lens lay was turned up so that the glass rested perpendicularly on one edge facing into the testing room, a low-ceilinged narrow gallery about 100 feet long, that projects from the rear of the primitive workshop.

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 specimen may be determined with infinitesimal accuracy.

He then pointed out a spot just a shade darker than the rest of the surface, where in polishing that afternoon he had left the glass raised about one one-hundred-thousandth of an inch.

The shop was completed by the time the glass was successfully cast, and as soon as the casting was finished it was brought up from Butler and placed in the main workshop on a big revolving table, that was turned by a small four-horse power gas engine, which also furnished the power to the crane that hoisted and lowered the massive metal grinders.

transportation of a "parcel" from Greenville, Pa., to Washington, D. C., and a letter from Bishop Hurst, head of the school, directing Dr. Peate to ship the glass as soon as convenient.

Transporting the Lens.

Accordingly the glass was packed with infinite care and every safeguard to prevent even so much as a pin scratch marring its perfect polish.

Dr. Peate has an iron band clamped about the lens and outside of that he bent two other iron bands, the ends of which pass up through the top edge of the case, where they are securely riveted. By this means the glass is kept constantly vertical and literally hangs in its case, having enough play on padded cushions to escape the severest jolt.

However, a delay has occurred because of the fact that the express company has no office in Greenville and the glass has not yet been shipped.

After every known optical test has been given a telescope lens while it is being made there is one final and best one that can only be made when it is completed.

It was while the great lens was resting in its carrying case that he conceived the idea

of turning it on the heavens. Accordingly he silvered its face. Then he wheeled the case out onto a small platform in the rear of his workshop. Thirty-two feet out from the platform he constructed rough scaffolding. Thirty-two feet is the distance from the face of the big mirror at which its rays of reflected light are focused. He had next constructed a thirty-two foot wooden arm made like a huge crucifix. The open ends of this he placed on either side of the glass and the other closed end was raised to the top of the scaffolding. On it he placed the eye-piece, through which the focused light is admitted to the eye.

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

DANDIES OF MANILA.

Costumes Worn by the Swells of Deweyville.

The costume of the Manila dandy, according to a correspondent of the Independent, consists of a pair of white cotton 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 folds, unconfined by the trousers.

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 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.

When the same question of German sentiment 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 emperor's opinion in his policy of the strictest neutrality. There is no sympathy in Germany for poor 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 know that the protest of a war against 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 it is not our business to take sides. I understand German interests too well to risk a single pennig for the sake of one side or the other. If he could impose peace on both combatants, no doubt he would, for peace is a pre-eminent German interest."

A German Editor's View.

PHITZ MORRIS.

More Treasure from Klondike.

RECEIVER FOR A PAPER COMPANY.

Young King Has the Measles.

DR. PEATE AT WORK ON HIS GREAT LENS.

and the reflected rays falling on a small inclined glass mirror near the focus point 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 diameter greater by twenty-two inches than the latter, but also of principle, the Peate glass being a reflector and the Yerkes a 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 possible size and in perfect achromatism, but they are inferior in the amount of light that is available, in definition and in permanence or durability. Reflectors are superior 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 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.

Peculiar 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 \$300,000, was imminent. The disinterested relatives 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 legacy the late Sir Edward Bates, who died last year, left to his married daughter. He stated 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 legatees.

During this year a gentleman who died at Mons left a legacy of \$2,000 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. Furthermore, his memory was to be toasted at dinner, 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 son a large fortune on the condition that he should 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 opinion it is dull and stupid and badly written the heir has either to write it over again or lose the fortune.

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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:

1.—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.]

HOW GERMANS VIEW OUR WAR

American Victories Produce a Marked Change of Sentiment.

WANT A SLICE OF THE PHILIPPINES

Believe the War to Be One of Aggression and Would Like to Share in the Spoils—Attitude of Emperor William.

Berlin, July 14.—Had any well informed American resident of Germany been asked six weeks ago how the Germans felt toward the United States as regards the war with Spain he would have been hesitatingly said they were against us from A to Z. That statement would have been based not upon the hundred little daily insults and petty affronts to which Americans were subjected, but upon certain pronounced and positive facts. In the first place, the most intense jealousy exists against us because of the rapid development of our trade, which is crowding the German manufacturers even in their home markets. American steel rails, machinery, agricultural implements, tools of all kinds, bicycles, typewriting machines and novelties sell cheaper in Berlin today than similar articles of German make.

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COOK REMEDY CO. BLOOD POISON A SPECIALTY. Cured in 15 to 35 Days.

BLOOD POISON We Guarantee to Cure

WHEN OTHERS FAIL CONSULT DOCTORS Searles & Searles

WEAK MEN SYPHILIS

MADE ME A MAN

DR. McCREW, SPECIALIST, Treats all Forms of DISEASES AND DISORDERS OF MEN ONLY.