Wonderful Instrument Now Nearing Completion at the Yerkes Observatory.

GREAT THINGS ARE EXPECTED OF

How Photographic and Spectroscopic Astronomy Will Be Developed Far Beyond Present Possibilities.

CHICAGO, April 18.-Imagine a telescope 1,000 feet long, mounted on the summit of a lofty tableland in the clearest obtainable atmosphere.

Conceive it not as a slender steel tube mounted on an axis turned by a gigantic but delicate astronomical clock in a dome covering forty acres of ground, but as a long, low shed, without windows or doors in its sides, and with nothing about it to relate it to the observatories of today except a tenfoot plane mirror mounted on a coelostat at one end, and back of and about the mirror laboratories filled with the largest and best obtainable apparatus for the analysis and study of star images. And with all this, what else?

Perhaps nothing at all, for the 1,000-foot telescope is as yet only the astronomer's dream, and in a large way its future is conditioned by the success of a smaller but still enormous telescope under construction at the Yerkes observatory of the University of Chicago, at Williams bay, Wisconsin.

Perhaps, on the other hand, unimaginable things about distant worlds, as yet undiscovered: the details of star clusters and nebulae, of which even the existence is as yet unknown; more probably phenomena in connection with the moon and the planets, which will make the fancies of a sensational novelist take secondary place in fascinating literature.

And with all this, an emancipated astronomer, seated in the midst of his apparatus, directing, focusing, but no longer following with weary eye and tired body the slow progress of the butt end of the telescope across the observing floor. For, while the 1,000-foot instrument is still a dream, the 165-foot instrument is nearing completion at the Yerkes ob-Should it be successful, it will mark the introduction of the methods of the physical laboratory into astronomy on a large scale and will enable the astronomer to apply to the details of his work recording and measuring instruments which can not be operated with any telescope that must be balanced and moved by an astronomical clock.

Photography in Astronomy.

We are accustomed to think of a telescope moves hour after hour across the floor of professor in an ordinary state of placidity. the observatory, slowly noting down the phenomena which he there observes. These phenomena the layman must take on the astronomer does not want to be kept down

photography has come into vogue as a mount his apparatus on brick or stone method for recording these observations. piers, solidly, and to have the best and More recently it has been discovered that biggest apparatus he can get so he can astronomical photographs may show things make his measurements with the greatest which cannot be seen with the naked eye, accuracy. He doesn't want this apparatus even through the most powerful telescope, to be moved and swung at the end of The astronomer has learned that by at- six-ton tube mounted on a pivot. He wants taching a photographic plate to his tele- it where he can encase it and keep it at scope and keeping it at a given point in the even temperature, as he cannot do in the heavens for several hours he will find on old way. And he wants to be able to switch gave him-since his eye was subject to fatigue and the plate was not. Besides, he ever he will and which is as plain to any one without a telescope as it is to him. exposition of 1900, but it was probably Moreover, he may find-as has frequently happened-that he has countless stars and has never seen. Though he may gaze for Yet by the use of successive plates he can study their phenomena from night to night and preserve a record of them that will show whether any change in position or

shape is taking place. Taking these stellar photographs is a difficult job. In the first place, the lenses of the telescopes are made for the use of the equally. Consequently, when we wish to light tight, horizontal, with a dark room focus rays with a lens we must use one which will bring to a focus the particular rays we need to use.

Our eyes see with the yellow and green rays and these are the ones that are focused in "visual" lenses, such as are used in telescopes. Ordinarily the photographic eclipsed sun through the lens down the plate is sensitive to blue and violet rays and to those ultra violet rays which are beyond the eye. When it was decided to it might focus the "actinic" rays needed. That shortened the focus of the telescope and made it awkward to handle. But it enabled the astronomers to get very wonderful pictures, especially of the moon.

sensitive to the blue and violet alone. It by other rays. And in this way a plate can be made that will be affected by the yellow and green, though it will "visual" lens and the picture that the eye sees can be thus recorded, that is, the image can be printed in by the same colored rays that the eye sees with. This is the actual process employed at several observatories today, notably at the Yerkes observatory, where it has made the forty-inch refractor, the largest in existence, a photographic in-

But when they came to take photographs with this big telescope at the University of Chicago observatory the astronomers faced the same experience others had, the big telescope would not take such good photographs of the fainter stars as the smaller instruments would. In fact, as the observatory was equipped with a battery of three telescopes, it was found that each of flector and the 40-inch refractor-was best suited for some particular kind of photographic work. The big fellow enormously magnified the images and showed details which were not imaginable from pictures made from the smaller instruments. But the big fellow needed so much length, that he would have needed two or three nights, perhaps, to make a photowhich the smallest of the three have made finely in six or seven great observatory of the future was likely to be not necessarily the possessor of the largest telescope in the world, but the one possessing the largest battery of telescopes, each adapted to some particular work.

WORLD'S BIGGEST TELESCOPE play more and more. For centuries astronomers had gazed at stars, measured and omers had gazed at stars, measured and observed and studied them with the eye. They had come to apply analytical apparatus to the end of the telescope and record therewith facts about the stars that could not be perceived with the eye. And they had come to a point beyond which they could not utilize this apparatus with the revolving telescopes. Every pound of weight added to the chance of deranging the telescope, and, besides, there was no room to attach the big spectroscopes, twenty-five feet or more in length, to the end of the tube.

And the possibilities of the use of this apparatus were as alluring as were those of photography. Away out there millions of miles distant is a star. To the eye it remains year in, year out, a fixed point of light. Even through the telescope it does not appear to move, so slight is its orbit compared with the enormous distance that separates it from us. Yet it is whirling through space as we are, about some sun which it obeys, as we do ours. How do the astronomers learn this? Through the spectroscope.

Everyone is familiar with the fact that when a whistling locomotive is approaching, the pitch of the whistle rises, and as the engine recedes it falls. This is because the sound waves are "crowded together" by the onrushing engine and shortened as it approaches, and are drawn out longer as it goes the other way. The same thing happens to the light of an onrushing star. The eye can not detect it, but the spectroscope does. The astronomer allows the light of the star to come through a slit and be broken up by the instrument. He selects a single line of the spectrum of the star, chooses a guide line beside it, and watches it. If the star is approaching the light waves will be shortened and the light will become slightly nearer the violet. it is receding the waves will be longer and the light will approach the red.

Red is "low pitch" in light, and blue is "high pitch." As the star swings about the curve at this end of its orbit the light gradually returns to normal, because the star, while moving just as fast, is not approaching us as much. As the star turns back the line goes the other side the normal. By continual observation the astrono mer finds how fast and how far the star goes each way and how often it does so. In the case of some stars he discovers that what appears to be one is really two, which is shown by the fact that a line will divide into two and one part move up and down the spectrum at the same time. Such stars are known as spectroscopic doubles.

With another bit of apparatus the astronomer measures the heat the stars send us. Some night in winter when you are out of doors hold your hands up and let Arcturus warm them. You may not feel the heat, yet Arcturus sends us most heat of all the stars. Astronomers say it is the "hottest." It gives us as much heat as a long steel tube equipped with lenses as a tallow dip six miles away would do. for bringing close to the observer the image You can not feel that, with your thick skin, of the star or nebula. We think of the but the radiometer detects it and even less astronomer as a man doomed to spend the with ease. For instance, this instrument nights of his life in a cold dome, open to has been known to detect and measure the the weather, while, with the eye glued to heat emanating from a man's face 2,000 the smaller end of the big instrument, he feet away. And the man was an Oberlin rive in the city on its return from the

Need for Fixed Telescopes. With such instruments as that to use the longer to watching the stars through a re-In the last twenty years, to be sure, volving telescope. He wants to be able to the star image from one instrument

So he has come to the horizontal fixed telescope. There have been many small, will have a record that he may show wher- experimental telescopes of this character built. There was a large one at the Paris never finished, for no astronomer got the benefit of it. In that same year the Uniperhaps even nebulae recorded which he versity of Chicago astronomers, having occasion to observe an eclipse of the sun hours he cannot see these with his eye. in North Carolina, built one. The eclipse was to be total. The astronomers wanted photographs made with long focus and showing details. It would have been manifestly too expensive for consideration to build massive foundations and erect an enormous telescope and dome down there May ball of the hive, which will be given for that occasion. The eclipse would not be total at Lake Geneva. Wisconsin, so they built in North Carolina a long wooden shed at right angles at one end of it. The shed was 61% feet long-the exact focal length of the 6-inch lens they proposed to use. A coelostat, or clock motor, carrying

plane mirror, was set up in front of the shed, and reflected the image of the shed to the plate. Remarkable Eclipse Photography

It was necessary-or desirable-to make several exposures. The total phase lasted ing the heavens it was found necessary to eighty-seven seconds. So a track was built construct an additional lens, at a cost of in the focal plane and a ball-bearing car-\$12,000, to put on over the visual lens, that risge set on it and on this seven plates were put. Then the workers, who stood in the dark room behind this line of plates, had but to move them along one at a time. with the greatest possible speed, exposing one a quarter of a second, the next a half, the next two seconds, the next four, the next eight and one fourteen and another thirty seconds. When they were developed each was found to contain a fine picture of is possible to "orthrochromatize" the plate the eclipse—each good for some especial -that is, to "dye" the solution with which feature, the shorter exposures for the it is sensitized so that it will be affected brightest parts of the corona and the "prominences" or bursts of flame, the longer exposures for the margins and duller portions of the corona. They were the still be more sensitive to the blue and sharpest in detail and the best picviolet. By introducing a yellow acreen in tures of such an object ever taken, and front of the plate, so as to let no blue rays when enlarged many times and thrown upon through, this plate can be used with a a screen by a magic lantern gave thousands of persons, thousands of miles from the scene, views of the eclipse better than they could have obtained had they been there

to see it. This long, horizontal telescope was a per fect success. When that was demonstrated the astronomers set to work to build a larger one, which should be permanent and should combine with this photographic feature the use of the larger apparatus in

permanent mounts.

The result now stands on the observatory grounds, ready for the coelestat and the inhoratories. It is a wooden shed, like its predecessor, and this one is 165 feet long, about eight feet wide and five or six feet high, with a gable roof. It resembles nothing so much as a long and well built chicken house without doors and windows. It is open at one end. To the lay observer there is nothing astronomical about it.

In the workshop of the observatory thirty-inch reflecter is ready for its mount. There will be no lens in this telescope, affect the light. It is desired to have the star rays enter the apparatus without change as they reach the earth. Down at the other end of the tube will be the concave mirror which will focus the rays, and this will be mounted on a track, so that after no further discussion of the pie ques-it can be advanced or drawn back, to tion will be allowed within the walls of the focus the image on the photographic plate on a mount inside the tunnel or to throw it into the slit of a spectroscope farther

back in the laboratory. With this instrument so near completion, the enthusiasm of the astronomer going on in astronomy along with stellar has increased. He does not expect to photography, and that was the bringing of take pictures of the faint stars with this.

tachment to the brightest stars and COMMERCIAL AND FINANCIAL nebulae and to the sun and mosn. But for his work he is already eager for larger

machinery. "The 1,000-foot telescope must come," declared one of the astronomers the other day as he threw a photograph of the big tunnel on a screen in Fullerton hall. Chi-"I will not be surprised if before years we see it realized-a 1,000foot telescope with a ten-foot reflector, mounted on a high tableland and unfolding wenderful things to us."

The possibilities of such an instrument can best be conceived when we consider that through the forty-inch refractor a photographic image of the moon seven inches across is obtained. In the 165-foot telescope the moon will appear more than nineteen inches across. Through the 1,000 foot telescope the observer will behold a moon 109 inches diameter. Every little detail will be enlarged more than fifteen times and the

train of the imperial potentate will arwest. In this train will be representatives from all of the temples of New York and other eastern states, acting as a guard of honor to the party of imperial officers. At that time, if the program is carried out as is expected, the head of that distinguished party will be a member of Tangier temple, Henry C. Akin, and the members of the temple will break all records in entertaining the imperial potentate's party.

Thursday evening Mount Calvary commandery, Knights Templar, will install officers for the year.

Thursday evening St. John's lodge, Anofficers as follows: Master, Clyde J. Backus; senior warden, William G. Bourker junior warden, Albert P. Johnson; secretary, Carl E. Herring; treasurer, W. W.

Saturday evening the members of Myrtle Leaf chapter, Order of Eastern Star, gave a banquet at Freemasons' hall. There were present, in addition to the members of the lodge, a number of Masons. The program consisted of music and speeches all by members of Myrtle Leaf chapter. Members of Gate City hive, Ladies of the

Maccabees, are making preparations for the

PIE ON THE BLACK LIST.

Women Debaters Successfully Lam with Ice Cream.

The supremacy of the American ple is thing of the past. Pie of every kindpumpkin, huckleberry, peach, apple, mince or cherry—has been relegated to the rear 13% c. Eggs, steady; fresh, 15c. by the result of a tremendous debate in the University of Indianapolis.

This mighty intellectual struggle was decided in the hall of the Philokurian so- Quotations of the Day on Various ciety before one of the most distinguished

photography, and that was the bringing of take pictures of the faint stars with this. NEW YORK, May 3.—COFFEE—Spot. the methods of the physical laboratory into He expects to devote its photographic at-

Speculators Witness Quiet Day and Prices in Grains Ease Off.

PROVISIONS GO QUITE THE OPPOSITE

Close Five to Ten Cents Up, While Bears Take Advantage of Luli in Dealings and Force

Cereals Down.

CHICAGO, May 3.—Many buils changed their sentiment on the grain situation today, and although the trade for the most part was quiet and unimportant, lower prices resulted. At the close July when was 1/2 lower, July corn 1/40% down and July oats 1/3c lower. Provisions were independently strong and closed 5c to 71/40 loc bless.

will behold a moon 109 inches is diameter. Every little detail will be diameter diam

Articles.	Open.	High.	Low.	Close.	Yea'y.
*Wheat May July Sept. *Corn-	75% 76%@17 76%@%	75% 77 76%	7476 76% 75%	75 76@14 75%@14	75%@% 76%@% 75%@%
May July Sept.	60% 626% 61%	60% 62@% 61%	60 611/6 60-5/4	60 611/2 60%	621/4621/4 61%
May "July "Sept.	42 34% 29%	421/4 343/4 293/4@90	41% 341/4 29%	42 34% 29%	421/6 345/6 293/4
Pork— May July Sept.	16 90 17 06 17 2234	16 90 17 1216 17 2216	16 90 17 05 17 15	16 90 17 1214 17 1714	17 6235 17 1259
May July Sept.	10 10 10 15 10 22%	10 123/2 10 20 10 273/2	10 10 10 15 10 221/2	10 121/2 10 20 10 271/2	10 0714 10 15 10 25
May July Sept.	9 50 9 571/g	9 575 9 65	9 50 9 55	9 531/4 9 55-71/4 9 65	9 4216 9 50 - 9 55

*No. 2. **Old.
Cash quotations were as follows:
FLOUR-Firm; winter patents, \$3.90@4.00;
straights, \$3.20@3.80; clears, \$3.00@3.60; spring
specials, \$4.00@4.30; patents, \$3.40@3.80;
straights, \$2.40@3.30.
WHEAT-No. 3 spring, 71@75c; No. 2 red, 83@844c. OATS-No. 2, 42c; No. 2 white, 44@444c; No. 3 white, 434@444c. RYE-No. 2, 584c. BARLEY-Fair to choice mailing, 68@

71½c.
SEED—No. 1 flax, \$1.67; No. 1 northwestern, \$1.79; prime timothy, \$7.25@7.35; clover, contract grade, \$8.35.
PROVISIONS—Mess pork, per bbl., \$16.95@17.00. Lard, per 100 lbs., \$10.15@10.17½.
Short ribs sides (loose), \$3.50@9.60. Dry salted shoulders (boxed), \$7.75@8.00. Short clear sides (boxed), \$10.10@10.20.
WHISKY—On basis of high wines, \$1.30. The following were the receipts and ship ments yesterday: Receipts. Shipments.

Articles. Receipts. Flour, bbis. 18,000
Wheat, bu 42,000
Corn, bu 163,000
Oats, bu 241,000

NEW YORK GENERAL MARKET.

audiences ever gathered together in Indianapolie. The question under debate was defined in the resolution that "pie is of greater service to mankind than ice cream." The male debaters took the affirmative, while the girls defended the contrary position.

The argument was begun by Robert Matthews, a young divinity student, who proved himself a veritable Duns Scotus in the subtlety and profound depths of his

construction of the control of the c

quoted at \$1.00@11.50 for standard, spot; lake, \$11.20; electrolytic, \$11; casting, \$11.375, \$21.375, and spotter at \$4.235, and spotter at \$4.25. Iron remained steady to firm, but not active.

EGGS-Steady; state and Pennsylvania,
176174c; western, at mark, 16%@17%c;
southern, at mark, 15%@164c.

TALLOW-Steady; city (2 per pkg.), 6%c;
country (pkgs. free), 6%@6%c.

RICE-Firm; domestic, 4%c; Japan, 6%@
6c. MOLASSES-Firm; New Orleans, open kettle, good to choice, 33@41c.

NEW YORK STOCKS AND BONDS

Threatening Break at Opening Offset by Strong Close.

by Strong Close.

NEW YORK, May 3.—The net changes in today's stock market show little of the feverish and nervous experience during the two hours' trading. When the market closed yesterday there was little realizing of the nature of the financial troubles reflected in the collapse yesterday of the so-called Webb group of stocks on the Stock exchange and in the curb market.

Today opportunity had been given to make provision to avert the threatened failures and to provide for support in the stock market. The fact that no stocks are deliverable on Saturday under contracts, according to Stock exchange rules and that loans made on Friday carry over to Monday, helped the efforts to avoid trouble.

There was a threatening break in prices at the opening of the stock market, in spite of a strong upward movement in Louisville & Nashville and Pennsylvania. These advances were lost, however, and the supporting orders at weak points were found necessary to check indiscriminate ilguidation. When St. Paul was selling in 100-share lots at 170 there were bids in the market for 1,000 shares at 170%.

The centralized buying was not followed up when it was seen that the selling was checked. After the bank statement appeared the buying was renewed in a more aggressive manner and the market developed a fairly buoyant tone, with the closing active and strong. Earlier losses were generally wiped out and net gains were quite common at the close.

Of the stocks supposed to he immediately concerned in the disturbance Rutland preferred fluctuated between 103 and 99, with the last sale at 100, compared with 102 last night. St. Lawrence & Adirondack was variously quoted at 50 bid, 120 asked, at 75 bid and 120 asked, with the closing quoted quotation 50 bid and 100 asked.

The increase in cash shown by the banks was a lotal surprise, as the heavy subtreasury absorption during the week indicated a loss of upward of \$1,00,00,00. The relief thus afforded was a welcome one, in view of the loan expansion of upward of \$1,000,00,00. The relief th

| The following are the closing prices | The following are the closing prices | The closing are the closing are the closing prices | The closing are the closing are the closing prices | The closing prices | The closing are the closing prices | The closing are the closing prices | The closing are the closing prices | The closing price & St. L. Anaconga Min. Co.

42 Brooklyn R. T...

90% Colo. Fuel & I...

17% Con. Gas

68% Con. Tobacco pfd.

53% Gon. Electric

Hocking Coal

Inter. Paper

40 pfd.

153 Inter. Power

44 Laciede Gas.

84 National Biscuit.

65 National Biscuit.

65 National Biscuit.

125 National Biscuit.

126 Pacific Coast

127 Pacific Coast

128% Pacific Coast

128% Pacific Mail

18% People's Gas

112 Pressed S. Car

28% Pacific Mail

18% People's Gas

112 Pressed S. Car

60 pfd.

128 Opfd.

129 Opfd.

128 Opfd.

12 Brie
do lat pfd
do 2d pfd
Great Nor. pfd
Hocking Valley
do pfd
Illinois Central
Iowa Central
Iowa Central
Iowa Central
Lake Brie & W.
do pfd
Lake Brie & W.
do pfd
Lake Brie & W.
do pfd
Manhattan
L.
Met. St. Ry
Mex. Central
Minn & St. L.
Mo. Pacific
M. K. & T.
do pfd
N. J. Central
Norfolk & W. 58% Tenn. Coal & 1.

58 Union Bag & P.

33% do ptd.

158 U. S. Leather

65% do ptd.

58% U. S. Rubber

70 do ptd.

65% U. S. Steel

58% do ptd.

58% do ptd.

58% Western Union

57% Amer. Locomo.

59 do ptd.

165% K. C. Southern.

160% do ptd. do let pfd... do 2d pfd... St. L. Southw

New York Money Market.

NEW YORK, May 3.—MONEY—On call, irm at 6 per cent, closing, bid and asked, at per cent; prime mercantile paper, 41/2614 per cent.
STERLING EXCHANGE-Steady,
bankers' bills at sterning Exchange—Steady, with actual business in bankers' bills at \$4.87% for demand and \$4.85% [4.6%] for sixty days; posted rates, \$4.886, 884, and \$4.88% [4.85]; commercial bills, \$4.84% [4.85]; BILVER—Bar, 50%c; Mexican dellars, 41c. BONDS—Government, steady; state, inactive; railroad, easier.

The closing quotations on bonds are as follows:

do ptd

\$10,768,400; deposits \$968,189,600, increase \$13,545,000; circulation \$31,049,300, increase \$79,000; legal tenders \$75,681,090, increase \$677,300; specie \$173,850,400, increase \$677,300; specie \$173,850,400, increase \$1,252,390; reserve required \$243,147,400, increase surplus \$7,484,000, decrease \$1,277,950.

CASH TAKES A BIG JUMP Statement of Associated Banks Shows

Week's Gain of About Four Millions.

NEW YORK, May 3.—The New York Financier this week says: The official statement of the New York Associated banks last week chowed an in-crease of \$1,433,000 in cash, instead of a decrease of \$2,501,800, as was estimated from he traceable movement of money

decrease of \$2,501,800, as was estimated from the traceable movement of money during the week.

The striking feature of the official statement was the large increase of \$10,768,400 in loans. This may be regarded as surprising, considering the fact that there was good evidence of large eatling of loans early in the week, incident to preparations for the disbursement of May interest and dividends, and considering also that there must be more or less liquidation of loans due to syndicate operations of some magnitude, possibly resulting in part from the payment during the week of \$10,000,000 for Pennsylvania bonds and of a like amount for Rock Island purchases.

The deposits were augmented by \$13,643,000, or \$1,440,900 greater than was called for by the increase in loans and in cash. The statement was therefore out of harmony. The required reserve was increased \$3,410,750 by the gain in deposits. Deducting therefrom the increase in cash, leaves \$1,977,050 as the loss in surplus reserve, reducing this item to \$7,484,000; a year ago the surplus was \$10,989,160.

The most notable changes in loans were by nine downtown banks, which showed a net gain of \$8,800,000. Four of these banks increased this item \$9,800,000, while two of the banks indicate a decrease of \$2,900,000. Two Wall street institutions gained \$3,100,000 in specie, while two others lost \$3,600,000. It appears probable that, as was the case in the previous week, the cash of the banks showed an increase of about \$2,000,000. It appears probable that, as was the case in the previous week, the cash of the banks should improve during the current week by reason of the fact that treasury dispursements for interest were large on Friday last, and payments by banks into the treasury, on account of retiring circulation for May and also for the return of public deposits, were most likely completed at the end of the week.

That the surrender of public money by depository banks has been important seems to be indicated by the fact that the total in all banks were reduced

That the surrender of public money by depository banks has been important seems to be indicated by the fact that the total in all banks were reduced \$1,835,418 between April 28 and May 1, inclusive. A comparison of the deposits in the banks show that Secretary Shaw did not succeed in distributing the surplus during April to the extent intended, the deposits of public money increasing in that month only \$2,178,000. The secretary probably will make a 000. The secretary probably will make a strenuous effort to distribute his surplus during this month and may be more successful.

Bank Clearings.

OMAHA, May 3.—Bank clearings for the week ending today show an increase of \$257,833.13 over those of the corresponding week of last year. The daily figures read: *297,555.13 year. The daily figures 1.00.

Monday \$1.041,115 42 \$1,156,705 04

Tuesday 935,135 51 1,047,591 73

Wednesday 1,110,022 67 1,141,158 99

Thursday 1,280,940 52 1,101,768 90

Friday 1,280,940 52 1,101,768 90

Friday 1,269,706 85 1,047,562 56 .\$6,829,419 62 \$6,571,556 49

ings, \$23,985,356; balances, \$3,493,763. Money, 5 per cent.
PHILADELPHIA, May 3.—Clearings, \$26,257,424; balances, \$18,259,254. For the week: Clearings, \$133,140,184; balances, \$16,788,184. Money, 44; per cent.
ST. LOUIS, May 3.—Clearings, \$8,033,387; balances, \$1,318,442; money, steady, 44;268 per cent; New York exchange at par. CINCINNATI, May 3.—Clearings, \$2,477,300; money, 44;268 per cent; New York exchange, 10;215c premium.

Foreign Financial.

LONDON, May 3.—Gold premiums are quoted as follows: Buenos Ayres, 140.70; Madrid, 36.57: Lisbon, 28.50; Rome, 2.10. Madrid, 35.31; Iashon, 25.30; Rome, 2.10; Money was more plentiful and less wanted today, as usual at the week end. A million pounds sterling was released by the maturing of London county council bills. Discount rates were thereby made easier. PARIS, May 3.—Business was extremely quiet on the bourse today. Russian industrials were weak. Rentes were dull. Internationals were dull and Kaffirs were inactive. The private rate of discount was 2½ per cent. Three per cent rentes, 10if 12½ for the account. Exchange on London, 25f 19c for checks. Spanish 4s, 79.45.

BERLIN, May 3.—Exchange on London, 20m 49 pfgs. for checks. Discount rates: Short bills, 1½ per cent; three months bills, 1½ per cent. On the bourse today business was dull and unsatisfactory owing to New York reports. Canadian Pacifics were conspicuously weak. Locals reacted on realizations.

NEW YORK, May 3.-The following are

St. Louis Grain and Provisions. ST. LOUIS, May 3.—WHEAT—Lower; No. 2 red cash, elevator, 81c; track, 87684c; May, 78½c; July, 74½c; September, 75c; No. 2 hard, 17679c.
CORN—Lower; No. 2 cash, 64c; track, 65½c; May, 62c; July, 62½65½c; September, 66c.

CORN—Lower; No. 2 cash, 64c; track, 65½c; May, 62c; July, 62½662½c; September, 69c.

OATS—Lower; No. 2 cash, 44c; track, 4½645c; May, 42c; July, 33½c; September, 29c; No. 2 white, 46@46½c.

RYE—Firm at 66c.
FLOUR—Dull; red winter patents, 33,70@ 3.85; extra fancy and straight, \$3,40@3.50; clear, \$3,00@3.20.

SEED—Timothy, steady, \$3.50@6.25, CORNMEAL—Steady, \$3.15.
BRAN—About steady; Backed, 30@93c.
HAY—Timothy, quiet, easy, \$13.00@15.00; prairie, firm, \$12.00@14.00.

WHISKY—Steady, \$1.30.
IRON COTTON TIES—Steady, \$1.65.
BAGGING—Steady, 61½66½c.
HEMP—Twine, 9c.
PROVISIONS—Pork, higher; jobbing, old, \$17.50; new, \$17.65. Lard, higher, \$10.02½.
Dry sait meats (boxed), strong; extra shorts, \$8.75; clear ribs, \$9.62½; short clear, \$9.87½, Bacon (boxed), strong; extra shorts, \$8.75; clear ribs, \$9.62½; short clear, \$9.87½, Bacon (boxed), strong; extra shorts, \$10.50; short clear, \$9.57½, Bacon (boxed), strong; extra shorts, \$10.50; short clear, \$9.57½, clear ribs, \$10.50; short clear, \$10.75.

METALS—Lead: Dull at \$3.92½@4.00.
Spelter: Firm at \$4.12½,
POULTRY—Steady; chickens, 9c; turkeys, \$26c; ducks, 10c; geese, 4½@6c.
BUTTER—Steady; creamery, 18@23c; dairy, 16@23c;
dairy, 16@23c.
EGGS—Steady at 14½c. dairy, 18620c. EGGS—Steady at 14½c. Receipts. Shipments.

Flour, bbls. 6,000 Wheat, bu 16,000 Corn, bu 33,000 Oats, bu..... 54,000 Liverpool Grain and Provisions. LIVERPOOL, May 3.—WHEAT—Spot:
No. 2 red western, winter, no stock; No. 1
northern, spring, steady at 6s 5d; No. 1
california, quiet at 6s 44d. Futures:
Quiet; May, 6s 2d; July, 6s 15d; September, 6s 35d.
CORN—Spot: Steady; American mixed,
new, 5s 8d; American mixed, old, 5s 8d.
Fitures: Quiet; July, 6s 2d; October, 5s
14d.

PEAS-Canadian, firm, 7s. FLOUR-St. Louis fancy winter, firm, 8s HOPS-At London, Pacific Coast, firm, PROVISIONS—Beef, strong; extra India PROVIBIONS—Beef, strong; extra India mess, 100s. Pork, strong; prime mess western, 76s. Hams, firm; short cut, 14 to 16 lbs., 54s. Bacon, firm; Cumberland cut, 26 to 30 lbs., 50s; short ribs, 16 to 20 lbs., 52s; 2d; long clear middles, light, 28 to 30 lbs., 52s; long clear middles, heavy, 35 to 40 lbs., 52s; short clear backs, 15 to 20 lbs., 52s; clear beilles, 14 to 16 lbs., 51s 5d. Shoulders, square, 11 to 13 lbs., firm, 30s 5d. Lard, firm; prime western, in therees, 51s 3d; American refined, in palls, 51s.

BUTTER—Firm; finest United States, 96s. CHEESE—Firm; American finest white, 58s; American, finest colored, 60s.

TALLOW—Prime city, firm, 30s.

Toledo Grain and Seed. TOLEDO, O. May 3.—WHEAT—Dull, weak; cash. Sc; May, 84½c; July, 78½c; September, 78½c. CORN—Dull, easier; cash. 61½c; May, 61½c; July, 62c; September, 61½c. OATS—Dull, easier; cash. 42½c; May, 43c; July, 25½c. SEED—Clover, dull, steady; cash. 15.22½; October, 15.30. Prime timothy, 13.30.

Philadelphia Produce Market. PHILADELPHIA, May 1.-BUTTER Pirm; extra western creamery, 24c; extra nearby prints, 25c.

16c; fresh western, 16%@16%c; fresh souths cestern, 15@15%c. CHEESE—Firm; New York full creams, ancy small, 12c; New York full creams, air to choice, 11@12%c.

Milwaukee Grain Market. MILWAUKEE, May 3.-WHEAT-Market aster; No. 1 northern, 77@7/1/c; No. 2 orthern, 76c, aster: No. 1 northern, rightse; No. 2 orthern, 76c. RYE-Steady. RYE-Steady. BARLEY-Steady; No. 2, 70c; sample, 60g

CORN-July, 614661%c.

Cotton Market.

NEW YORK, May 3.—COTTON—Spot closed quiet %c lower; middling uplands, 9 9-18c; middling gulflands, 9 1-18c; sales, 302 bales, Futures closed steady at the 302 bales, Futures closed steady at the decline; May, 8.18c; June, 8.18c; July, 8.17c; August, 9.03c; September, 8.47c; October, 8.22c; November, 8.18c; December and Jan-uary 8.14c.

8.12c; November, 8.18c; December and January, 8.14c.
8T. LOUIS, May 3.—COTTON—Quiet, 1-16c lower; middling, 97-18c; no sales; receipts, 878 bales; shipments, 1,015 bales; stock, 38,133 bales.

GALVESTON, May 3.—COTTON—Quiet stock, 36,133 bales.

GALVESTON, May 3.—COTTON—Quiet at \$\frac{9}{4}c\$.

LIVERPOOL, May 3.—COTTON—Spot, quiet, prices 1-18d lower; American middling fair, 519-32d; good middling, 55-18d; middling, 53-18d; low middling, 53-32d; good ordinary, 431-32d; ordinary, 423-32d. The sales of the day were 5,000 bales, of which 500 were for speculation and export, and included 4,500 American. Receipts were 7,000 bales, including 1,400 American. Futures opened quiet and closed easy on near months, and steady on distant months, American middling, g. o. c., May, 52-64d, sellers; May-June, 51-64d, buyers; June-July, 5651-64d, buyers; June-July, 5651-64d, buyers; June-July, 5651-64d, buyers; June-July, 5651-64d, buyers; December, 429-6404, sellers; December, 429-6404, sellers; December-January, 428-6404, 28-64d, sellers; January-February, 427-6464, 28-64d, sellers; January-February, 427-6464, 28-64d, sellers; New ORLEANS, May 3.—COTTON—Easy; sales, 200 bales; ordinary, 8%c; good ordinary, 8%c; good middling, 9 15-16c; middling fair, 10%c; receipts, 3,206 bales; stock,183,274 bales, Futures, quiet and steady; May, 9,55c; June, 9,52c; July, 9,5469,56c; October, 8,1068,10c, November, 7,9868,00c; December, 7,9868,00c, Officender, 7,9868,00c, Officender, 7,9868,00c, Officender, 2018,10c, Officender, 1,9868,00c, Officender, 2,986,00c, October, 7,9868,00c, Officender, 2,986,00c, October, 8,1068,10c, Officender, 2,986,00c, October, 8,1068,10c, Officender, 1,9868,10c, Off

Oil and Rosin Market.

Oil and Rosin Market.

OIL CITY, Pa., May 3.—OIL—Credit balances, \$1.20; certificates, no bid; shipments, 98,288 bbls.; average, 108,775 bbls.; runs, 81,415 bbls.; average, 61,860 bbls.

SAVANNAH, Ga., May 3.—OIL—Turpentine, steady, 424c. Rosin, firm; A. B. C. D. \$1.16; E. \$1.20; F. \$1.25; G. \$1,30; H. \$1.55; K. \$2.45; M. \$2.85; N. \$3.25; W. G., \$3.50; W. W., \$3.60.

TOLEDO, O., May 3.—OIL—North Lima, 83c.

NEW YORK, May 3.—OIL—Cottonseed, firm; prime crude, nominal, yellow, 454,60; 46c. Petroleum, steady; refined New York, \$7.40; Philadelphia and Baltimore, \$7.35; Philadelphia and Baltimore, in bulk, \$4.85, Rosin, steady; strained, common to good, Philadelphia and Baltimore, in bulk, 34.85. Rosin, steady; strained, common to good, 31.634@1.65. Turpentine, firm.
LIVERPOOL, May 3.—OIL—Turpentine spirits, strong, 33s 3d. Rosin, common, steady, 4s 14d. Petroleum, refined, steady, 74d. Linseed, firm, 31s 3d. Cottonseed, Hull refined, spot, firm, 26s 6d.
LONDON, May 3.—OIL—Calcutta linseed, spot, 53s 3d. Turpentine, spirits, 32s 84d.

Evaporated Apples and Dried Fruits. NEW YORK, May 3.—EVAPORATED APPLES—The situation remains about unchanged. The market is firm and offerings are light. Exports and jobbing demand is limited. State, common to good, 728%c; prime, 9%29%c; choice, 9%210c; fancy, 10% 211c. CALIFORNIA DRIED FRUITS — In prunes new fruit is steady and in fair jobbing request. Old fruit is irregular and holders will probably make concessions to move stocks. Small fruits are in some demand. Apricots and peaches are quite active in a jobbing way and steady to firm. Prunes, 3%,66%c. Apricots, boxes, 10%,612c. Peaches, peeled, 14615c; unpeeled, 8%,611c.

Sugar Market.

NEW YORK, May 3.—SUGAR—Raw, strong; fair refining, 3c: centrifugal, 98 test, 3%c. Molasses sugar, 3%c. Refined, No. 7, 450c; No. 8, 8, 85c; No. 9, 3, 90c; No. 10, 3, 85c; No. 11, 3, 85c; No. 12, 3, 75c; No. 14, 3, 75c; standard A, 4, 50c; confectioners' A, 4, 50c; cut loaf, 5, 20c; crushed, 5, 20c; powdered, 4, 80c; granulated, 4, 70c; cubes, 4, 90c. NEW ORLEANS, May 2.—SUGAR—Very strong; open kettle, 2% 31-16c; open kettle centrifugal, 263%c; centrifugal yellow, 3% 315-16c; seconds, 2% 36%c. Molasses, duli; centrifugal, 767%c.

RAILWAY TIME CARD. UNION STATION-10TH AND MARCY. Union Pacific.

Union Pacific.

Leave. Arrive.

Overland Limited. a 9:40 am a 7:30 pm
Fast Mail. a 8:50 am a 3:25 pm
California Express. a 4:25 pm
Pacific Express. all:30 pm
Eastern Express. a 7:00 am
Lincoln-Stromsburg Ex.b 4:06 pm b12:30 pm
Grand Island Local. b 5:30 pm b 9:35 am Chicago, Milwaukee & St. Paul. Chicago Limited.......a 6:00 pm a 8:06 am Chicago & Omaha Ex..b 7:15 am b 3:40 pm Missouri Pacific. St. Louis Express......a10:00 am a 6:25 pm K. C. & St. L. Express.a10:50 pm a 6:15 am

Wabash. St. Louis "Cannon Ball" Express a 5:15 pm a 8:20 am St. Louis Local, Council Bluffs alo:00 am a 10:30 pm Chicago, Rock Island and Pacific.

Illinois Central,

Chiengo & Northwestern.

WEBSTER DEPOT-15TH & WEBSTER Fremont, Elkhorn & Missouri Valley. Leave. Arrive.

Missouri Pacific. Nebraska Local, Via Weeping Water...... b 4:10 pm al0:25 am Chicago, St. Paul, Minneapolis &

Twin City Passenger...a 5:30 am a 9:00 pm Sioux City Passenger...a 2:00 pm all:20 am Emerson Local......b 5:40 pm b 8:45 am BURLINGTON STATION-10TH & MASON

Chicago Special a 7:00 am a 4:06 pm Chicago Special 2:00 am a 4:06 pm Chicago Local 2:00 am a 7:45 am Chicago Local 3:30 am all:00 pm Chicago Limited 2:00 pm a 7:45 am a 2:40 pm Burlington & Missouri River.

Kansas City, St. Joseph & Council Bluffs. Kansas City Day Ex...a 9:26 am a 6:05 pm St. Louis Flyer.....a 5:10 pm all:15 am Kansas City Night Ex..al0:30 pm a 6:15 am

a Daily. b Daily except Sunday. c Sunday only. d Daily except Saturday. e Daily except Monday. WANTED—Two or three unfurnished rooms; housekeeping; two adults; walking distance from business center. Address Z 55 Bee.