

# The Lancaster Intelligencer.

Volume XIX—No. 226.

LANCASTER, PA. THURSDAY, MAY 24, 1883.

Price Two Cent.

## PLUMBING AND GAS FITTING.

FLINN & BRENNEMAN.

### PURE PAINT,

—AND—

### WHERE TO BUY IT.

There is no advantage in buying and using the common mixed paints that are now flooding the markets. They can be bought at any price you offer for them, but you only waste your money and the work expended on putting them on. Wadsworth, Martin & Longman's Paints cost more at first, but they go farther, look better and last longer than any other goods in the market. Don't buy paint till you have inquired into the merits of these goods.

### FLINN & BRENNEMAN,

No. 152 NORTH QUEEN STREET, LANCASTER, PA.

JOHN L. ARNOLD.

### DON'T FORGET YOUR

### Winter Clothing Until the Moth Destroys Them.

### JUST RECEIVED FRESH SUPPLY

### CARBOLIZED PAPER.

### JOHN L. ARNOLD,

Nos. 11, 13, 15 EAST ORANGE STREET, LANCASTER, PA.

## DEY GOODS.

GEORGE FAHNESTOCK.

(BAIR'S OLD STORE.)

### 14 EAST KING STREET,

WE HAVE JUST RECEIVED A LARGE STOCK OF

### PLAIN AND FANCY

### CANTON MATTING,

### CANTON MATTING,

FROM THE LOWEST TO THE FINEST GRADES, WHICH WILL BE SOLD AT VERY LOW PRICES.

### GEORGE FAHNESTOCK,

NO 14 EAST KING STREET, LANCASTER, PA.

## LIVERY STABLE.

H. HOUGHTON'S.

### HOUGHTON'S

### New Livery and Sale Stables.

FIRST-CLASS HORSES AND BUGGIES TO HIRE; ALSO, OMBIBUSES FOR PARTIES AND PICNICS. HORSES BOUGHT AND SOLD AT ALL TIMES.

### Stables--No. 44 Market Street,

Near of Old Black Horse Hotel.

## BOOKS AND STATIONERY.

JOHN BAER'S SONS.

### JOHN BAER'S SONS,

NOS. 15 AND 17 NORTH QUEEN STREET.

Writing Papers, Envelopes, Decorated Correspondence Stationery, Bank-Note Books, Pocket Books, New Leather Hand-Bags

At the Sign of the Big Book.

## REMOVAL.

Removed to No. 46 EAST KING STREET, After April 1, 1883.

### FON DERSMITH'S BOOK STORE.

Will be removed to No. 46 EAST KING STREET, directly opposite the Court House, where there will be found a complete New Stock of Books, Stationery and Fancy Goods.

### G. L. FON DERSMITH, Bookseller and Stationer,

NO. 46 EAST KING STREET.

## MUSICAL INSTRUMENTS.

ZELKER & WOODWARD'S

### MUSIC STORE,

No. 38 WEST KING STREET, LANCASTER, PA.

Largest Stock of Pianos and Organs in the City. Decker Bros., Haines Bros., Stultz & Bawer Pianos, Mason & Hamlin Organs. Lowest Cash Prices. Old instruments taken in exchange.

Full Line of Small Musical Instruments, Cornets, Flutes, Pipes, etc., etc. We have Violins from \$5.00 to \$75.00; Flutes from \$1.00 to \$30.00.

Full Lot of Organettes, Harmoniums, Aristons, etc. All the Latest Sheet Music.

## SPRING GOODS.

NEW YORK STORE.

### SUMMER GOODS

—AT THE—

### New York Store.

Best value in

### SUMMER SILKS

In Stripes, Checks and Plain Colors, at 40c, 50c, 60c, and 75c a yard. SHADDED DRESS SILKS, 50c a yard. COLORED DRESS SILKS, elegant quality, 40c a yard. An immense quantity.

### LACE BUNTINGS,

### NUN'S VEILINGS,

### Summer Dress Goods:

### INDIA LINENS, VICTORIA LAWS,

### PARASOLS AND SUNSHADES

Direct from the largest manufacturers and can give the best possible value. TWILLED SILK PARASOLS, in natural colors, horn and fancy handles. FANTASY PARASOLS, LACE-TRIMMED PARASOLS, SUN UMBRELLAS.

Ladies', Gents' and Children's

### Summer Hosiery and Gauze Underwear.

In all Sizes and Quantities. We have opened another choice line of

### SASH RIBBONS, LACES AND LACE GOODS,

### EMBROIDERIES AND FANCY DRESS

### BUTTONS, at Lowest City

### Prices.

### Watt, Shand & Co.

No. 8 and 10 EAST KING STREET.

## CLOTHING.

OUR MESSAGE OR PROCLAMATION.

WHAT IT MEANS:

That we cordially invite you all to come to our store, and in so doing wish to state that we are prepared to give you a welcome that means something.

Further, it means that we shall show you the most elegant and complete line of

### Spring Styles

IN MEN'S, YOUTHS', BOYS' AND CHILDREN'S

### CLOTHING

YOU EVER SAW.

It means that those desirable goods will be offered to you at

### Prices Lower Than You Have Ever

### Known.

Prices that do not fall to elicit bargains every time.

It means that you will secure Clothing (our own superior manufacture) well-cut, well-trimmed, well-made, a couple of dollars less in price than from any other clothier in the city.

And if the saving of Dollars and Cents be a matter of interest to you—and we think it is—you'll be likely to give us a call without the asking.

### Myers & Rathfon,

Practical Merchant Tailors,

NO. 12 EAST KING STREET,

LANCASTER, PA.

D. B. HOSSETTER & SON.

### Spring Novelties.

ELEGANT STYLES IN

### French Woolens,

ELEGANT STYLES IN

### Scotch Woolens,

ELEGANT STYLES IN

### English Woolens,

ELEGANT STYLES IN

### Domestic Woolens,

ELEGANT STYLES IN

### Spring Overcoatings,

ELEGANT STYLES IN

### Pantaloonings.

### D. B. Hossetter & Son,

24 CENTRE SQUARE,

LANCASTER, PA.

H. GERHART

### SPRING OPENING

—AT—

### H. GERHART'S

### TAILORING ESTABLISHMENT,

NO. 6 EAST KING STREET.

OF THE LARGEST ASSORTMENT.

—OF—

### FINE SUITING,

### PANTALOONING

—AND—

### SPRING OVERCOATING,

Ever brought to the city of Lancaster.

Those desirous of securing Choice Styles are invited to call early.

GANSMAN & BRO.

—THE—

### Leading Clothiers.

As we have not marked our goods up here in no occasion to mark them down, we give below a list of prices of the greatest bargains ever offered for ALL-WOOL.

### CASSIMERE SUITS.

222 Men's Suits at \$50.00 sold elsewhere at \$120.00

175 Men's Suits at \$40.00 sold elsewhere at \$100.00

105 Youth's Suits at \$25.00 sold elsewhere at \$60.00

85 Boys' Suits at \$10.00 sold elsewhere at \$25.00

75 Children's Suits at \$2.00 sold elsewhere at \$5.00

And all the finest grades in proportion.

### IN MERCHANT TAILORING

We never have so many buyers before; as our low prices, workmanship and fit cannot be approached elsewhere. Look at our windows. Suits marked in plain figures from \$12 to \$25 to order. Light Colored Pants to order, a specialty.

### L. Gansman & Bro.,

THE FASHIONABLE MERCHANT

TAILORS & CLOTHIERS,

66-68 NORTH QUEEN STREET,

Right on the South-west Corner of Orange St.

Positively not connected with any other clothing house in this city.

BUY MY GOODS FROM FIRST HANDS for cash and sell the best goods for the money in the city at

## THE GREAT BRIDGE.

A TRIUMPH OF MODERN ENTERPRISE.

A History of the Inception and Completion of the East River Bridge—Its Measurements, Location and Dimensions.

The origin of the present magnificent structure which spans East river is involved in no obscurity whatever. In the Architects' and Mechanics' Journal of April 14, 1860, Mr. John A. Roebeling, in the name of Wm. C. Kingsley, a structure to begin near the City Hall park, at an elevation of about 80 feet above tide, with an ascent of about 125 feet to the centre of the East river, leaving a clear elevation of 190 feet, thence descending toward the Brooklyn shore, and landing within sight of the City Hall. Six years after this the realization of Roebeling's project was made possible by the courage and energy of Mr. Kingsley, aided by the legal skill and acumen of the late Henry C. Murphy and the congressional help of Wm. E. Robinson. Mr. Murphy introduced the bill for the construction of the bridge in 1867. The cities of New York and Brooklyn were authorized to subscribe to the capital such amounts as two-thirds of their common council should determine. Under the name of the New York bridge company the work was presented until 1874, when a law was passed by which the control of the erection and completion of the bridge was invested in the two cities and new trustees appointed to determine. Under the name of the East River bridge company the bridge was dissolved, in 1875, the money subscribed by individuals was returned to them, with interest. The original estimate for the bridge was \$7,000,000, but the total cost will be about \$16,000,000.

The Caisson Work.

The work of construction began on January 1, 1870. The greatest difficulty was to secure firm foundations for the towers. To build these foundations below the river was a work of great magnitude. Wooden caissons were used to support the towers of the bridge. A caisson is merely a great box bottomed with iron, the top of the caisson was fifteen feet thick on the top, of large, solid pine timbers, and the sides were nine feet thick and nine feet high. The measurement across the box from edge to edge was 102 feet by 168 feet.

The caisson was divided into six compartments, which were connected by means of doors. This great box was made water tight, and then anchored on the spot on which the tower was to stand. The caisson was protected from the river by a coffer dam of piles and sheet piling. The work of building the tower on the caisson was once begun and continued until enough weight was on top of it to keep it on the river bottom. There were large wrought iron tubes or shafts in the roof of the caisson through which earth and stones excavated on the inside could be taken out, and there was an air lock for persons to enter the caisson.

When it was sunk on the river bottom the water was forced out of the caisson by compressed air, and men could go in and work. One pound of air pressure equals two feet of tide water, so for every foot the caisson was lowered, one pound had to be added to the air pressure inside. Gages in the engine room above indicated the height of the tide and the pressure of air. The highest pressure attained in the caisson was 34 pounds to the square inch, in addition to atmospheric pressure. At that pressure a man could not whistle, and a candle blown out would immediately ignite again. Fresh water springs appeared. Beneath this caisson blasting and excavation went on for months, when a depth of 45 feet was reached, and the caisson was then settled on rocky foundation. The inside was then filled with broken stones and concrete until the whole thing was a solid mass; and then the work of erecting the tower went on rapidly.

Solving a Great Engineering Problem.

Greater difficulty was encountered on the New York side, and the caisson was made stronger and bigger, and had to be sunk to a depth of seventy-eight feet. Even at that depth solid rock was not discovered. But jagged points of rock stuck up here and there, and a bed of quicksand. The points of the ledge which appeared only under one end of the caisson were leveled off and the quicksand was confined within a wall of concrete, the whole area of the caisson was filled with the same material, after which the tower was erected and finished like the one in Brooklyn.

There were many interesting incidents in the work of building the foundations. The pressure of the compressed air would sometimes tilt up a caisson, and a portion of the air would escape, throwing up a large column of water fifty to sixty feet high. One Sunday morning a neglectful watchman caused a blow-out which covered the adjoining buildings and shipping with a coat of mud and injured two or three persons. Under extreme pressure some of the workmen became subject to certain physical derangements which have received the name of caisson disease. The Brooklyn caisson caught fire several times and twice had to be flooded with water. In December, 1870, a careless laborer placed a lighted candle on a shelf in close proximity to the caisson, and a fire of a timber joint, which ignited, and under the pressure of the fire made its way into the timber and out of sight. As the pressure was all outward, no flame or smoke could be seen in the caisson, and it was some time before the fire was discovered. Col. Roebeling was summoned and he entered the caisson at 6 o'clock p. m. and did not leave until 5 a. m. Overwork and anxiety, in addition to the many hours in the compressed air, had its effect, and he was partially paralyzed before he reached home. This was the beginning of the disease that has so long prostrated him.

The Towers and Anchorage.

The towers, built of granite brought from Maine, are 276 feet 9 inches above high water mark. The Brooklyn tower reached its full height in May, 1875, and its New York mate in July, 1876. The New York tower above the top of the caisson weighs 93,000 tons. The firmness of the foundation is shown in the fact that the tower has not settled two inches. At a height of 119 feet there are two arches in the tower, through which the cables will pass the streams of travel. On the top of the tower are saddle plates, huge iron castings, on which rests the weight of the cables. The cables are fastened in anchorages, 590 feet distant from the towers. The anchorages are built of stone, and are 129 by 119 feet at the base and 89 feet high. Over the top of them run the roadways. Imbedded in the two anchorages are huge plates of iron weighing twenty-three tons each, to which are fastened iron bars formed into chains, at the end of which are the cables that hold up the suspended part of the bridge. There are vaults in the anchorages where the cables join the anchor chains, and they can be inspected at any time by the engineers. The remaining stone work of the bridge consists of granite approaches, which are lofty viaducts. The Brooklyn approach begins at Sand street, and it is 971 feet long to the anchorage. The grade is two feet nine inches in each 100 feet. In this distance Prospect, Main and York streets are spanned by iron bridges. The

New York approach is 1,562 feet long from Chatham street to the anchorage. The streets are spanned by stone arches. Except Franklin square, where an iron bridge crosses over the station of the elevated railway. Beneath the arches of the approaches are spaces which will be utilized as warehouses. At each end of the bridge are station-houses for iron and steel, from which cars will run.

After the towers were completed the next engineering problem was to get the wires over them. The cables could not be made and then lifted into place. The first wire was carried across by a scow on August 14, 1876. It was lifted into place over the towers and fastened to the anchorages. A second wire was then run across and the two were fastened together, making an endless wire running over driving wheels. It was then an easy matter to run across another wire, and cable making really began June 11, 1877. On Aug. 25, 1876, E. F. Farrington, the master mechanic, crossed the river in a rigger's chair, which was attached to the "traveler" wire rope. A foot bridge stretched across the river to assist in making the cables. That bridge was four feet wide and was laid on two small cables 200 feet high. Two five-eighths inch wire ropes served as hand-raisers to this "pathway in the sky." Many persons made the perilous trip over it while it was in existence.

The making of the strands for the cables, which were begun on June 11, 1877, was not completed until October 15, 1878. Each of the four cables contains 3,296 parallel, two-twisted galvanized steel wires, closely wrapped in a diameter. So many wires could not be handled at once, so that each cable was divided into 19 strands. When 13 strands were finished in each cable seven of the central wires were clamped in the form of a small cable nine inches in diameter. This was made into the centre core. On June 14, 1878, the first serious accident in the operations of spanning the river occurred. A strand was lost at the New York anchorage. It was over the top of the caisson and into the river, killing two men and injuring three more. Altogether some twenty persons have been killed during the erection of the bridge.

When the cables were ready for their loads suspended hands, wire and cable were fastened on at intervals of seven and one-half feet. To these bands were attached suspender ropes made of sheet wires. These ropes are made to hold 100 tons each, but not more than ten tons weight will come upon any of them. The suspender ropes hold up the steel structure which forms the road ways.

At the approaches the width of the bridge is 100 feet. Here the wagon ways are paved with Belgian blocks, and the footways, which is only three feet above the roadways, has an asphalt pavement. But from anchorage to anchorage the bridge is different. It is a deft combination of steel beams, trusses, girders and cords, 85 feet wide, floored with timber except in the space reserved for the railway tracks. The weight of steel in the bridge is 4,620 tons. The great delay in the delivery of this steel according to contract postponed the completion of the bridge for nearly one year.

As now completed there are five parallel avenues on the bridge. The outer two are sixteen feet wide each, are devoted to vehicles. In the centre is an elevated foot path fifteen and a half feet wide. On either side of this are the railway tracks—one for cars going to Brooklyn and for those going to New York.

Capacity of the Bridge for Travel.

The promenade has a capacity, if persons move at the rate of 200 feet per minute, of allowing 45,000 persons to pass over every hour. The roadway will admit the passage of 1,440 vehicles per hour of an average weight of three and a half tons each, estimating three moving vehicles in every 100 feet. The bridge will sustain 10,000 soldiers marching better than any ordinary bridge.

The cars are to be propelled by an endless chain, but when they reach the centre of the main span they will run to the end of the bridge by gravity and momentum, being under the control of brakes. Passengers will get in at one end and will be unable to get out until they reach the other end of the bridge. It is calculated that eighty cars, such as are used on the elevated roads, can be kept in operation at once, twenty of which will be on the bridge at one time. Each car can accommodate 100 passengers, and 80,000 persons can be taken across in an hour.

The total length of the bridge is 1,535 feet. The length of the river span is 1,562 feet, and at the centre it will be 139 feet above high water in summer and 138 feet in winter, the difference being caused by the effect of the heat and cold on the steel. The wind blowing at a velocity of 160 miles an hour would not hurt the bridge. The greatest velocity of the wind here is 79 miles an hour. The centre of the suspended structure is 15 feet higher than the roadways of the towers. Not over 3 per cent. of the vessels that enter this port would have to strike their tops in passing under the bridge.

The anchors to anchor the bridge is 3,460 feet long and the total weight of the suspended structure is 17,780 tons. The cables, Chief Engineer Roebeling says, are strong enough to pull up the anchorages, which weigh 60,000 tons each. The bridge is to be lighted by 1,000 electric lights, in cooperation with other bridges:

Chelsea, suspended, 706 feet; Cincinnati and Covington (over the Ohio), suspended, built in 1867, 1,067; Clifton (over Niagara river), suspended, 1,268; Frisborg, built 1833, suspended, 570; Hungerford, suspended, 1,250; Kalamazoo, suspended, 1,050; Menard, built 1819-25, suspended, 2,320; Niagara, built 1855, suspended, 1,362; Pesh, built 1840-49, suspended, 1,362.

Not Suspended.

Victoria (over St. Lawrence river), wrought iron, 9,437 feet; Bombay, Madras, 3,730; Rome, at Drogheda, wrought iron, 1,760; Lisbon aqueduct, stone, 3,805; Louisville, Ky., 5,310; Mainstone aqueduct, stone, 16,367; Harlemp aqueduct, stone, 1,450; Montpelier aqueduct, stone, 3,214; Paris, 1,700; St. Louis, 1,700; Potomac, 3,300; Quincy, (over the Mississippi river), iron, 3,200; Omaha, (over the Missouri river), 2,800; Stockport, stone, 1,792; Strasburg, stone, 3,390; St. Charles, Mo., iron, 6,536; Susquehanna, 3,500; Albany, N. Y., extreme length, 2,562; Albany, N. Y., double track railway bridge, largest draw span in the world, 1,400; Vistula river, Germany, iron, 2,705; Fifth of Tay, length nearly two miles, or 10,321.

The Bridge Falls.

The rates of tolls on the following bridges have been fixed as follows: One horse and man, 5 cents; one horse and vehicle, 10; two horses and vehicle, 20; foot passengers, 1; two horses truck or wagon, 30; cattle each, 5; sheep and dogs, each, 2.

"The best in the world" is an old and true maxim. The Celluloid Eye-Glasses are the best for those who need artificial aid for their eyes. For sale by all leading Jewelers and Opticians.

Wm. McCartney, 28 Lloyd street, Buffalo, N. Y., fell and sprained his ankle. His employer, E. Anderson, 34 Main street, procured some Thomas' Electric Oil, and he says that a few applications enabled him to get to work as usual. For sale by H. B. Cochran, druggist, 137 and 139 North Queen street.

We Challenge the World.

When we say we believe we have evidence to prove that Shill's Consumption Cure is decidedly the best Lung Medicine made, in as much as it will cure a common or Chronic Cough in one-half the time and relieve Asthma, Bronchitis, Whooping Cough, Croup, and show more cases of Consumption cured than all others. It will cure where they fail, it is pleasant to take, harmless to the youngest child and we guarantee what we say. Price, 10c, 50c and \$1.00. If your Lungs are sore, Chest or Back lame, use Shill's Pectoral Plaster. Sold by H. B. Cochran, druggist, Nos. 137 and 139 North Queen street.

Physical Suffering.

No one can realize, except by personal experience, the anguish of mind and body endured by sufferers from dyspepsia, indigestion, constipation, and other diseases of the stomach. Burdock Blood Purifiers are a positive cure for this class of all diseases. Price 25c. For sale by H. B. Cochran, druggist, 137 and 139 North Queen street.

A Dangerous Counterfeit.

There are dangerous counterfeits in circulation purporting to be "Walnut Leaf Hair Restorer." The strongest evidence of its great value and its safety to the hair is a positive efficacy to induce it. Each bottle of the genuine has a fac simile of a walnut leaf blown in the glass; and a Green Leaf on the outside wrapper. The "Restorer" is as harmless as water, while it possesses all properties necessary to restore life, vigor, growth and color to the hair. Purchase only from responsible parties. Ask your druggist for it. Each bottle is warranted. JOHNSON, HOLLOWAY & CO., Philadelphia, and HALL & HUCKEL, New York.

MEDICAL.

PERRY DAVIS'S PAIN KILLER

THE TEST OF 40 YEARS

PROVE BEYOND DOUBT

—THAT—

PERRY DAVIS'S PAIN KILLER

—IS—

THE GREAT HEALTH KEEPER,

THE RELIEVER OF DISTRESS,

THE COMFORTER FOR PAIN.

The Enemy of Disease and a Friend of the Family, which should always be at hand.

EVERY DRUGGIST KEEPS

Perry Davis's Pain Killer.

LANCASTER WATCHES

THE

### Lancaster Watches.

POPULAR GRADES.

GILDED MOVEMENTS:

"NEW ERA."

"WEST END."

"FRANKLIN."

"FULTON."

"KEYSTONE."

"LANCASTER."

NICKEL MOVEMENTS:

"MELROSE."

"LANCASTER."

The Manufacture of the Full Line of Favorite Movements, with the adoption of the Line of Dust-Proof Movements, and Ladies' Watches, goes forward with increased energy.

HATS AND CAPS.

THE ONLY

&lt;