

EVERY DAY SCIENCE.

Forced Respiration in Cases of Drowning and Asphyxia.

WEALTH OF THE UNITED STATES.

Photography That May Reveal the Inhabitants of the Planets.

THE SUB-ATLANTIC PNEUMATIC TUBE

Readers of THE DISPATCH who desire information on subjects relating to industrial development and progress in mechanical, civil and electrical engineering and the sciences can have their queries answered through this column.

The medical world is just now interested in a very simple but very useful apparatus for the production of forced respiration without opening the trachea. The cases in which forced respiration is the only means of saving life are such as opium narcosis, where there is a paralysis of the respiratory center in the medulla, causing the number of respirations per minute to diminish, and resulting in a veritable asphyxia; natural, where gases, such as illuminating, natural, marsh, etc., including such vapors as chloroform, ether and nitrous oxide, have been inhaled; and, lastly, drowning. Patients in these cases need air only to oxygenate the blood, but, in many instances, to exhale the poison. Dr. Fell some years ago struck on the idea of opening the trachea by means of a brass tube through a tube inserted in the wound. He saved many lives.

The new apparatus is the invention of Dr. C. R. Vanderburg, a rising young physician of Columbus, Ohio. It consists of a heavy rubber cup which fits over nose, mouth and chin, and is retained by hand or straps around the head; in this cup a brass tube which connects with the bellows by a rubber tube about five feet long. Inside the brass tube is a valve which is so constructed that it allows air to pass into the bellows is collapsed, which air readily enters the lungs through the nose and mouth. The tension of the column of air on the way to the lungs, is the factor which keeps the air from creeping to the outside through the exit valve which opens just back of the cup. As soon as the operator sees he has caused a good inhalation by pressure on the bellows, he stops, the exit valve opens automatically, and the air in the lungs is readily exhaled by the natural resiliency of the chest wall and diaphragm and elasticity of the air cells.

As the apparatus fills every requirement in cases of drowning it is attracting attention in naval circles, and its early adoption by the navy and life saving service is probable. In medical practice it is well known that the number of respirations per minute is considered by all physicians in forming an opinion of the patient's condition. In timing by a watch many nervous patients may be somewhat excited and breathe faster, so as not to represent the rate fairly. A simple and effective means of recording the respirations with perfect accuracy has been devised by the inventor. The latest apparatus penetrates what is absolute darkness to the naked eye. With an exposure of 33 minutes the same instrument, which renders visible to the human eye stars of the fourteenth magnitude, which in the entire heavens would register about 4,000,000 of stars, shows to the photographic eye 134,000,000, and on an exposure of 1 hour and 20 minutes would throw before the astonished gaze of the beholder a luminous field of 400,000,000 of stars. With such a science at our disposal, giving us as it does even in its present comparatively elementary stages of development, a power of sight infinitely transcending that of the natural eye, it seems by no means improbable that at some future day, in the photographic views of

LATE NEWS IN BRIEF.

Church and state are to be separated in the Brazilian Republic. Chinese soldiers are deserting to the rebels because their pay is in arrears. Dr. Raimondo Alfonso Palacio has been elected President of Venezuela. France will impose a duty of 5 francs on foreign corn and 3 francs on corn flour. The mind of General Trowbridge of Michigan, is said to be incurably affected. The Seattle and Montana Railroad has been incorporated with a capital of \$100,000,000. The world at Nahua, N. H., will start up tomorrow, the wage trouble having been settled. An organized effort is being made to induce an exodus of Southern colored people to New England. The fight between the creditors of R. R. Donnelly & Sons, Chicago printers, has been amicably settled. Eight persons were injured in a runaway sleigh accident at Baldwin, Wis., yesterday. Negotiations between Canada and the United States looking toward the settlement of the Behring Sea dispute are proceeding slowly but satisfactorily. The Wash. Insurance Company has failed. The assets are \$1,000,000 and the liabilities \$1,000,000. The failure is due to the stockholders refusing to take possession of the company as the President issues his proclamation. The Diller-Goodale Company, proprietors of an important road, have sued E. J. Lippincott & Co. for \$300,000 damages, resulting from a statement in one of the latter's publications that the road contained a gas mine. At a meeting called in San Francisco to devise means to assist the unemployed, it was decided to put them to work in a public park, the money to be raised by subscription. The sum of \$25,000 was secured to begin operations. The case of the "Baltimore" is still pending. Fire at Brockton, Mass., destroyed yesterday the dry goods and clothing stores of J. H. Hart and J. H. Hendrick, and damaged considerably the bank building on the east. The losses are about \$1,000,000; insurance, \$13,000.

Colorado and Consumption. A very important review of the influence of the climate of Colorado on the health of consumptives sent there from other States has appeared, the statements made being based on an analysis of a hundred recorded cases in which the patient has been under observation long enough for the effects of his sojourn to be determined. Fifty per cent of all the cases received so much benefit that they were able to pursue their occupations. In these cases the patient occupies a room where the air is constantly renewed. Seventeen per cent were somewhat improved, but had always to use certain precautions, and to limit their exertions. Many of these returned to their homes. Seven per cent of all the cases became worse, largely because of their own imprudence. Twenty-six of all the cases died.

Wealth of the United States. The rapid increase in the wealth, business and prosperity of the United States during the last ten years is simply marvellous. The total wealth of the country is now \$11,450,000,000, equal to nearly \$1,000 per head. This is an increase in 10 years of \$18,000,000,000 or 42 per cent. England's wealth in 1885 is given as \$50,000,000,000, giving an average wealth per head of \$1,543. The average in Scotland is \$1,215 per head and in Ireland \$665. The total wealth of France is estimated at \$36,000,000,000. England exacts in taxes \$30 per head of population, while each individual in the United States pays but \$12.50. America will produce 9,000,000 tons of iron this year, while England's greatest production is 8,600,000 tons.

Latest Scientific Gospel. It is not generally known that common salt is an admirable remedy for neuralgia. The salt should be either "snuffed" or blown up the nostrils. A MACHINE for making "wood wool" is being used in England. The use of wood wool is coming rapidly into favor among manufacturers of glass chimney, confectionery, etc., for packing purposes. The machine makes the wool very cheaply. MERCHANTS have not used much rolled wrapping paper because they could not have their advertisements printed on it; but now a machine has been invented that will do the printing, and sheet wrapping paper will soon be a thing of the past. A SOCIETY of medical men in London, England, have united to form a hypnotic society, the purpose of which will be to prevent by law public exhibitions of mesmerism and hypnotism. Another society will be to study privately and scientifically the phenomena of those morbid states.

AN improved dumbbell has been devised. It consists of two hollow wooden shells through which the handle passes. These shells can be the receivers of a large or small quantity of sand or shot as may be desired, and thus the weight of the dumbbell can be graduated with the greatest accuracy. VICTOR MEYER, the scientist, announces that "we may reasonably hope that chemistry will teach us to make the fiber of wood a source of human food." What an enormous stock of food will be found, if this becomes possible, in the wood of our forests, and even in grass and straw, can hardly be realized. FOR A disordered liver try Beecham's Pills. PEAR'S Soap the purest and best ever made.

THE ARTISTS AND THEIR WORK.

A FINE copy of the new etching "Watching the Sheep," by C. Van Leemputten, may be seen at TTSU.

BOYD & Co. have sold Le Grand Johnston's landscape with sheep, and A. F. King's fruit and flower pieces.

MR. C. KILPATRICK exhibits a pastel portrait of a child at Mayer's. It is a smoothly finished work, fairly well handled and of rather pleasing color.

THE full length portrait of a child that has been shown in Young's window for the past few days is the work of Mr. Charles Wain. It is a study in color in the artist's usual style of handling.

A NUMBER of fine water colors have been disposed of from the Petter collection, and the balance will be sold privately. Many of them are of high character and equal merit. The exhibition will close on next Tuesday evening.

AN oil color portrait of a lady, the work of Mr. A. Bryan Wall, is shown at Gillespie's. It is painted with the light toned background that has found so many favor among artists of late, and has been skillfully executed both in color and handling.

MR. H. S. STEVENSON has several landscape studies under way in addition to his work on portraits. Three of the most noticeable works are an effect of morning mist, one of twilight repose, and one a bright sunset with the sky suffused with golden yellow light.

MR. D. R. WALKLEY is at present engaged upon a picture that will, when completed, undoubtedly prove one of the most notable works of his class yet shown by a Pittsburg artist. The subject is a landscape, in the early winter when the trees are almost bare of leaves, and the effect rendered is that of the reposeful hour just after the sun has dropped below the horizon. The figures of a man and a couple of dogs lend a degree of animation to the scene without disturbing its air of quietude and serenity.

MR. W. H. ANTERBERG is to the front again with another picture. His last exhibition, the large copy of Hofmann's "Christ in the Temple," called forth a somewhat spirited discussion. The new picture is a work of an entirely different character, the subject being a landscape of a very pleasing style as regards composition, but rather indifferently handled. If the execution of the painting was of a degree of merit in keeping with its excellence as regards subject matter, the composition, it would fairly constitute what is known as a strong picture. It has been upon exhibition at Young's.

A STUDY of still life and flowers, bearing the name E. Maple, is shown at Mayer's. The flowers, a bunch of chrysanthemums, form the interest of the picture, and in the manner in which they have been handled there is evidence of a considerable degree of artistic skill on the part of the artist. With the exception of the

NEW ADVERTISEMENTS.

BIJOU THEATRE. Under the direction of R. M. GULICK & Co. WEEK BEGINNING MONDAY, MARCH 10, MATINEES WEDNESDAY and SATURDAY.

GILBERT & SULLIVAN'S. The score is superior to the Mikado. Latest and Greatest Success, THE GONDOLIERS. THE KING OF BARATARIA.

MAGNIFICENT COMPANY. The same production which R. D'Oyle Carte, Messrs. Gilbert & Sullivan's representative, pronounced superior to all the other American productions.

THE COMPANY. Mr. W. S. Dabold, Mr. R. Dunbar, Mr. Charles Drew, Mr. Joe Frankau, Mr. Williet Seaman, Miss Addie Cora Reed, Miss Fannie Edwards, Miss Louise Paulin, Miss Jeannette St. Henry, Miss Helen Foster.

Grand Chorus of 40 and Augmented Orchestra of 25. The Magnificent Stage Settings which aroused the enthusiasm of the Chicago audiences. SEATS NOW ON SALE. March 17—Emma Abbott Grand English Opera Company.

Good morning! "Paris Exposition, 1889. Pears obtained the only gold medal awarded solely for toilet SOAP in competition with all the world. Highest possible distinction."

REBUILDING SALE. Owing to our continued success of the past several years we have been forced to annex the adjoining property to accommodate our large list of patrons. Previous to our rebuilding we now offer our entire stock at an actual discount of 25 per cent. We have an elegant line of Diamonds, Watches, Jewelry, Silverware, Clocks, etc. and our prices now and until April 1 next will be found EXCEEDINGLY LOW.

K. SMIT, 934 Liberty Street, Corner Smithfield.

NEW ADVERTISEMENTS.

BIJOU THEATRE-EXTRA! ONE WEEK Commencing MONDAY, MARCH 17. Matinee Wednesday and Saturday. SALE OF SEATS THURSDAY, MARCH 13. Engagement of the Famous EMMA ABBOTT.

EMMA ABBOTT and Entire Company. TUESDAY—Adelphi's Grand Opera, CROWN DIAMONDS. EMMA ABBOTT and Entire Company. WEDNESDAY—Matinee, 7:30, 9:00 and 2:30. Half's Funnel Opera, BOHEMIAN GIRL.

EMMA ABBOTT and Entire Company. THURSDAY—Vendit's Grand Opera, IL TROVATORE. EMMA ABBOTT and Entire Company. FRIDAY—Bellini's Heroic Opera, NORMA.

EMMA ABBOTT and Entire Company. SATURDAY—Adelphi's Grand Opera, ROSE OF CASTILE. EMMA ABBOTT and Entire Company. SUNDAY—Flower's Charming Opera, MARTHAS.

EMMA ABBOTT and Entire Company. GEORGEOUS COSTUMES! ENCHANTING MUSIC! BRILLIANT MISE EN SCENE. mb9-47

OLD CITY HALL. Friday Evening, March 14. The Pittsburg Press Club has the pleasure of announcing the appearance of Miss NELLIE BLY.

REPERTOIRE: "My Journey Around the World." Usual Press Club Prices, 50 & 75c. Reserved seats at Kiebers, Tuesday March 11. mb9-66

THE DISPATCH BUSINESS OFFICE. Will be removed to corner Smithfield and Diamond sts. mb9-117

NEW ADVERTISEMENTS.

GRAND OPERA HOUSE. MR. E. D. WILK, Lessee and Manager. One Week, Commencing Monday Evening, March 10. Matinee Wednesday and Saturday. ENGAGEMENT OF ROSE COGHLAN.

Under the management of Augustus Fison. Monday, Tuesday, Wednesday Matinee and Night, the Romantic Drama, JOCELYN! Thursday Night and Saturday Matinee, the Charming Comedy, PEG :: WOFFINGTON!

Friday and Saturday Night, the Emotional Drama, FORGET-ME-NOT! All the Scenery, Properties, Furniture, etc., used in "Jocelyn" will be the same as used in the original production in New York. Prices, 25c, 50c, 75c, \$1 and \$1.50. Next Week—THE EXILES. mb9-29

HARRY WILLIAMS' ACADEMY. MONDAY EVENING, MARCH 10. Matinee, Tuesday, Thursday and Saturday.

REILLY. 3 Bross, Byrne, Alexanderoff, Brook, G. G. Dancers, The Wood Family, ALFRED, NELLIE, FRANCIS and JULIA, Miss Florence Miller, Boulogne, Empress, The Canton Wonders, Miss Millie Price, Alice Hussar, Miss Helena, John F. Byrne, The Talbot Sisters. March 17—Lilly Clay's Colonial Co. mb9-3

HARRIS' THEATER. Week Commencing Monday, March 10, EVERY AFTERNOON AND EVENING. GEO. A. BAKER'S BENNETT-MOULTON COMIC OPERA CO. PEOPLE—44 NEW AND ELEGANT COSTUMES. REPERTOIRE: MATINEES—Monday, Fantina; Tuesday, Olivette; Wednesday, Robert Macaire; Thursday, Boccaccio; Friday, Bohemian Girl; Saturday, Boccaccio; Sunday, Boccaccio. NIGHTS—Monday, Boccaccio; Tuesday, The Beggar Student; Wednesday, Black Hussar; Thursday, Chimes of Normandy; Friday, Fantina; Saturday, Olivette. Week March 17—The Blue and the Gray. mb9-71

IMPERIAL HALL. Cor. Seventh Avenue and New Grant Street. The Most Exciting Contest of All! VOTE FOR YOUR FAVORITE FIGURE CALLER. At the Imperial Reception, EVERY THURSDAY NIGHT. mb9-99

FRENCH, KENDRICK & CO., IMPORTANT NOTICE.

CONTRIBUTION OF OUR REMOVAL SALE.

THE GREAT SUCCESS which attended our announcement of last week is something wonderful, and far in excess of our expectations. Crowds have thronged our store from the time we opened at 10 o'clock last Monday, and our resources have been taxed, during this time, to their utmost. In consequence of the interest shown by the public, we have decided to put into this sale TWENTY-FIVE THOUSAND DOLLARS (\$25,000) worth of CHOICE GOODS which we had reserved for our new store. All of this immense stock of goods will be newly tagged by a special yellow ticket for the benefit and convenience of our customers, showing the former price and the marked-down price. Look for the yellow ticket. We shall make a grand effort to make the week ending March 15 show the largest volume of business ever done by us, and, to do so, shall not spare the profits. Goods will be marked cheaper than ever before. Many who came late last week were disappointed, as the advertised goods were all sold. To those who would avoid being disappointed, we would say: COME EARLY, AS WE CAN RESERVE NOTHING.

SECOND WEEK OF REMOVAL SALE. FIRST FLOOR. 100 doz. imitation cut glass tumblers, ground bottom, fine quality, marked from 80c per doz. to 45c per doz. 100 Sevres pattern china cups and saucers marked from 75c each to 37 1/2c each. Decorated syrup cups marked from 60c each to 35c each. Decorated sugar and creams marked from \$1.25 per pair to 85c per pair. 36 cuspidors, color decorations, marked from 50c each to 33c each. 30 extra strong cuspidors, spray decorations, marked from 75c each to 59c each. 40 heavy-banded china cuspidors, in four colors, marked from \$1.75 each to 85c each. 25 fine china Dresden flower pattern cuspidors, marked from \$2 to \$1.37 each.

SECOND WEEK OF REMOVAL SALE. FIRST FLOOR. Fancy flower pots, cylinder shape, mosaic decoration, small, marked from \$2 to \$1.39 each. Medium, \$3 to \$1.90 each. Large, \$4.50 to \$2.87 each. Cylinder shape, high colors, small, marked from \$2.50 to \$1.63 each. Medium, \$3.50 to \$2.39 each. Large, \$5 to \$3.33 each. Air moisteners and flower pots combined, 2 sizes, four decorations, marked from (small) \$3 to \$1.71 each; large, \$7 to \$4.63 each. 25 Water Pitchers—beautiful imitation Venetian glass, marked from \$1.25 and \$1 to 69c each. 10 only, extra fine decorated fruit dishes, marked from \$3.50 to \$2.12 each.

SECOND WEEK OF REMOVAL SALE. SECOND FLOOR. Just received, the balance of our import order from Japan, goods ordered for the holidays, which were unavoidably delayed. These goods, arriving as they have, too late for our Christmas trade, we should not have kept but for the fact that the manufacturers cabled us to close them out at any price. This means a great loss to them, but we shall do it. 50 doz. fine decorated china octagon plates, which should have sold for \$1 each, price now 59c. 20 doz. extra fine Japanese plates, English dessert size, from \$1.25 and \$1 to 73c each. 10 only, extra fine China, 75 pieces, breakfast sets, marked from \$1.79 to \$1.27. 15 only, 111 pieces, Japanese dragon china dinner sets, marked from \$7.50 to \$4.99.

DINNER WARE DEPARTMENT AND ART ROOM. ON SECOND AND THIRD FLOORS. Owing to the crowded condition of our store and elevator the past week, many of our customers were unable to go further than our first floor. The speed of our elevator has been increased, so that now we can carry double the number of passengers. We have on our second floor the finest selection of DINNER WARE to be found in the city. It will pay you to inspect it. Our ART ROOM, on the third floor, is crowded to overflowing with CHOICE ART GOODS and CHINA, all to be sacrificed to close them out. To all who have, and all who have not, visited our Second and Third Floors, we would say that a VISIT WILL MORE THAN REPAY YOU.

SECOND WEEK OF REMOVAL SALE. FIRST FLOOR. 1 artistic turquoise and gold gas lamp, supported by gold dolphins, marked from \$30 to \$21.19. 1 only, B. & H. center draft lamp, antique silver finish, marked from \$25 to \$17.25. 1 only, reticulated bronze lamp marked from \$30 to \$22.57. 1 bronze Nubian-footed lamp marked from \$45 to \$33.67. 1 reticulated bronze and pottery banquet lamp, with Baccarat globe, marked from \$32 to \$23.76. 1 bronze relief, birds and foliage. Amphora shape lamp, fluted globe, spangled shade, \$20 to \$13.89. Brass-footed, yellow satin-finish vase lamp, from \$10 to \$6.39.

SECOND WEEK OF REMOVAL SALE. Third floor—Art room. Take elevator. Etager stands in Berlin metal, finished in bronze and jet, will not warp, all the rage in Berlin and Paris, for ornamental cups and fine china. 1 only, in square, marked from \$21 to \$14.59. 2 round marked from \$17 to \$12.13. 1 smaller round marked from \$13 to \$8.43. 1 corner stand marked from \$22 to \$16.33. 1 corner cabinet, silver finish, with plate mirrors, marked from \$35 to \$24.63. 1 Parlor cabinet, silver finish, marked from \$55 to \$37.19. Piano Lamp—Solid brass, perforated body, brass foot, spiral ornamentation, marked from \$50 to \$31.29. Piano Lamp—Fine brass lamp, patent spring extension, marked from \$45 to \$27.53.

SECOND WEEK OF REMOVAL SALE. Third floor—Art room. Take elevator. 25 Doulton bon bon trays, marked from \$1.50 and \$1.25 to 83c. 1 royal blue, 15 pieces, china tete-a-tete set from \$30 to \$18.79. Cut glass sugars and creams, fancy block, marked from \$11 to \$8.27 each. 1 doz. royal Worcester A. D. coffees marked from \$30 to \$23.67. 2 elegant Doulton floor vases, in delicate colorings, from \$20 to \$16.33. 1 doz. fine royal blue Doulton plates, festooned edge, marked from \$35 to \$26.73. 1 doz. fine white and gold Limoges china cups and saucers marked from \$22.50 to \$16.19. 1 fine rich gold Haviland game set, marked from \$30 to \$23.67.

French, Kendrick & Co., No. 516 Smithfield Street, Opposite City Hall.

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