Displays Photographs. ACCURACY OF WEIGHING SCALES.

Expert Discussion as to the Usefulness of

Lightning Rods.

EXTRACTING IRON FROM SEA SAND

PREPARED FOR THE DISPATCH. A singular device has been brought out in England, to wit, an attachment for application to gravestones, vaults, etc., for displaying photographs, and for holding visiting, mourning, or memorial cards, flowers and similar articles. Photographs of the deceased, or suitable mottoes, are attached to a disc, revolving by means of a button project ing from the face of the spparatus at the back of the device, which is fixed on to the headstone or vault. A small lock-up box with a glazed front is also attached to the face of the disc, the said box being provided with a longitudinal slit for the reception of visiting, memorial, or mourning cards, and with a shade or canopy or binged sloping root over the slit to prevent the rain, snow, etc., from entering the box through the slit. Double vases are secured to brackets on the face of the device, the inner vase being water-tight for the purpose of holding cut flowers, the outer vase being perforated to enable trailing plants to grow over the sides, and thus to mitigate the plainness of the tombstone. A hook is fixed just above the top of the ring for the purpose of hanging a wreath upon. There are people in the world whose tastes run to this kind of thing, and to such this new device will be accept

Weighing Scales.

A somewhat remarkable pair of scales for weighing large parcels of silver bullion have just been completed in England, to the order of the Indian Government, for use in the Bombay mint. The beam of the instrument is a plain forging in wrought iron 11 inches deep in the center and 31/4 inches at the springing of the end bexes which at the springing of the end boxes which carry the knife edges for supporting the pans, the thickness being also tapered from 1½ inches in the center to ¾ inch at the end of the arms. The total length of the beam between the points of suspension of the pans is six feet. The pans are square platforms covered with copper, their weight being about one hundred pounds each, and that of the beam four hundred pounds. When tested empty the addition of one-sixteenth of an avoirdupois onnee was sufficient to deflect the index through the whole range of the powerful scale, and when loaded of the power ul scale, and when loaded with five hundred and fifty pounds on each scale, under which condition the load on the central kui e edge is about fourteen hundred pounds, a deflection of our divis-ion is produced by one gramme, which corresponds approximately to 1-280,000 of the load to be determined, a degree of susceptibility that is very remarkable in a machine of such size and power.

Lightning Rods.

The question of the degree to which light ning rods can be relied on to afford protes tion has just been discussed before the London Institution. The ultimatum arrived at seems to be that in all cases of steady strain in which a charged cloud descending from the upper regions of the air, or approaching from a distance, might inflict serious injury upon an unprotected building, a well-designed and properly earth-connected light-ning rod is an absolute safeguard. In a ning rod is an absolute safeguard. In a case of "impulsive rush" the rod may o ten be of use in bearing the brunt of the discharge, though sometimes the lightning will take no notice whatever of it, striking the building and altogether neglecting the rod, and it is even possible that a high rod might attract a destructive discharge which otherwise would not have occurred. at all. Although, therefore, a lightning rod is in many cases, probably in a very large majority, of the greatest service, it cannot be depended upon as affording perfeet immunity from risk, and the assump tion which has universally been made b "the older electricians" that damage by

Statistics on Railways.

Some valuable statistics of the railways of the United States have been given by the statistician of the Inter-State Commission in his report for the year ending June 20, 1890. Under the caption of "Men Employed on Railways," are some very interesting figures, showing that the railroads Six poles, to enable the troops to carry in this country give direct employment to 704,743 workers, averaging 459 to each 100 miles of road. Another table is presented, showing in contrast that the number of employes on English railways amounts to 1,748 per 100 miles of road, or about four to one, as compared with this country. In this connection the statistician makes significant reference to the number of railway accidents from all causes for the year, the number of persons killed and injured being accidents from all causes for the year, the number of persons killed and injured being respectively 5,823 and 26,309. The tables presented emphasize with tremendous force the necessity for immediate and stringent legislation in the way of safety appliances

Iron From Sen Sand.

Among the numerous magnetic separators which have lately been put before public one of the most remarkable is that for the extraction of iron from sea sand. It is stated that ordinary sea saud contains from 5 to 7 per cent of iron, enough, in fact, to give a large excess over cost of extraction. The machine is very simple, consisting of a cylinder, whose surface is composed of electroinaguets, revolving on the inside o au end-less canvas belt. The sand is fed to the heit, and a spray of water separate the particles, the iron being retained by the power-rul electro-magnets, and carried off on the belt to a receptacle at the other end, while the sand falls into the trough below. It is claimed that the iron can thus be extracted for about one-eighth of its value.

Improved Ironing Machine Many of the leading firms of collar and cuff manufacturers in England are using an improved machine for the ironing and polishing of all shapes of linen cuffs, collars, and fronts, as well as fronts with collars attached. The top roller is of highly polished steel, and is heated internally with gas and air. In the tront end of the heated roller is inserted a perforated plate which admits air and allows the surplus heat to escape. The bottom drum has its surface padded, and is brought by a lever into contact with the heated roller, a hand wheel underneath being used for varying the pressure on the article under operation.

The invention of an instrument to which the name barothermotelemeter has been given is announced. Its purpose is to enable observers to take readings as often as desired, and by a single wire, from baremeters and thermometers placed at great heights or distances, without the necessity of the observer placed, thereby saving much expense, and enabling observations to be taken at points where residence might be impossible.

Exenvator Grabe,

A useful addition to a dredging plant is in use in California. Excavator "grabs" are slung on "booms" or spars, more than 100 feet long and operated entirely by steam power, making trips in from one and half to two minutes' time, and raising at each operation more than two tons of gravel,

NEW ADVERTISEMENTS First Annual Tarentum An Attachment for Tombstones Which

WILL BE HELD AT

TARENTUM, PA., September 2 and 5.

FRESH ATTRACTIONS!

THE EXHIBITION WILL POSSESS A HIGH ORDER OF MERIT

BEST OF RACING!

NEW FEATURES WILL PREDOMINATE.

LOW FARES ON ALL RAILROADS

EVERYBODY INVITED TO ATTEND.

H. M. BRACKENRIDGE, President.

For Premium List or Other Information, address

W. H. McCULLOUGH, Secretary.



WEEK BEGINNING MONDAY, SEPTEMBER 1. COWBOY NAMPSON,
(Lewis Hanson)
Will give the greatest display of muscular endurance ever seen.

The Animated Rubber Woman,
MISS ETTA LAKE,
Only Elastic Skin Woman in the World.
THE LADY HERCULES,
Allows huge rocks to be broken to small pieces with sledge hammers using her breast as an anvil.

GRAND OPERA

Mr. E. D. WILT.....Lessee and Manager

Evening, September 1.

Engagement of the distinguished tragedian

LOUIS JAMES,

And an excellent company in repertoire

Next week-Augustin Daly's Company, UN-DER THE GASLIGHT. au31-41

HARRY WILLIAMS' ACADEMY

MONDAY AFTERNOON, SEPT, 1. -LABOR DAY MATINEE-

MONDAY EVENING AND REGULAR MATINEES TUESDAY, THURS-

DAY AND SATURDAY.

THE GON-DO-LIARS.

MOZART ORCHESTRA-L M. ALLEN, Leader, T. J. Brady, Prompter. Music for Parties, Receptions, Weddings, etc. Gen-eral office 16 Sixth st., Pitt-burg. Branch offices: T. J. Brady, 35 Federal at., Alleghenv, and Ley Bras., 129 Ohio st., Allegheny, au31-35

Sept 8-GRIEVES BURLESQUERS.

The Nonpariel,
JACK DEMPSEY,
and the famous middle
weight,
JIMMY CARROLL
Mointyre & Heath.
Heien Courtland.

THE

HENRY

BURLESOUE

VIRGINIUS,

Monday night—OTHELLO.

Tuesday night
and
Wednesday matinee
Wednesday night—HAMLET.
Thursday night—RICHELIEU.
Friday night—JULIUS CÆSAR.
Baturday matinee—INGOMAR.
Baturday night—MACBETH.

The Performer of the Great Trunk Mystery,
MISS LILLIAN DE LAND.

This lady is 5 feet 5 inches in height, and weighs 160 pounds. An ordinary trunk, 1828 inches is placed on two chairs, and after removing over 100 miscellaneous articles, such as tin cans, cups, bottles, etc., the lady berself emerges from the trunk in full view of the audience. THEATER:

DIXON & LANG'S VAUDEVILLE COMPANY.

The Character Vocalists DIXON AND LANG. The Well-Known Black Face Comedian JAMES W. THOMPSON. McDOWELL AND STEVENS,
"Two Practical Jokers." The Peerless Transformation Dancer, MINS KITTY BMITH, Changing Costumes in One Second. The Great Novelty Sketch Team, CONNURS AND GARWOOD, ir Great Wench Specialty "Commo The Home Favorites,
MITCHELL AND LOVE,
The Well-Known Song Writers.

The Comedy Sketch Artists, Dick | THE McAVOYS | Alice Admission, 10c. Children, 5c. Reserved seats, 5c extra. Opera chairs, 10c extra. Afternoon opera chairs, 5c extra. Two matiness every afternoon; doors open at 1 P. M. Two performances every evening; doors open at 7 P. M. On Monday, September 1, Labor Day, doors open at 12 o'clock noon. NEXT WEEK-Roach & Castleton's Magnets.

sand or other material. The weight of the lightning is in itself conclusive evidence of some imperfection in the conductor is an unfounded one.

"the older electricians" that damage by lightning is in itself conclusive evidence of some imperfection in the conductor is an unfounded one.

"the older electricians" that damage by grab, which is 6 feet in diameter and 11 feet high, is 37,000 pounds. The closing or penetrating orce is 72,000 pounds and is enough to charge the spparatus in hard

Regimental Field Telegraph.

An ingenious field telegraph has been invented by an English judge. The coils of double insulated wire, giving a complete metallic circuit, wound on bobbins, are One Week, Commencing Monday supported on the backbones of two bicycles. ried off and saved from capture.

New Stuffing for Bents. A new fabric has been devised which is intended for use in stuffing car seats and backs in the place of curled hair. This fabric is quilted by a knitting process, and is quite different in appearance from any other textile fabric manufactured. The filling is carried and confined in an untwisted state, thus securing the softness of the natural fiber. Each section of filling is placed in separate pockets. It is not cound to mat or harden, and it is claimed that the cost is much less than that of curled hair, as the labor in upholstering is greatly dimin-ished, and the back of the plush is much less liable to be cut. The fabric is also used for matresses, pillows, bolsters, table padding, and for all upholstery purposes. It is made in thicknesses of from % inches

Bonding Shovel Handles. The large proportion of shovel handles, usually about 75 per cent, which are split or broken in the process of bending, has led the invention of a shovel bending muchine. The saving effected may be estimated from the fact that in a trial lot of 25 dozen put through the machine, only one handle was spoiled.

ALL qualities of dress goods to be opened Monday. KNABLE & SHUSTER, 35 Fifth ave.

LOOK AT the Voting and Price Essay page of this issue of THE DISPATCH.

HARRIS' THEATER.

Week Commencing Monday, Sept. 1. Every Afternoon and Evening.

Special Engagement of W. J. FLEMING'S CO. Original Copyrighted and Only Au-thorized Version of Jules Verne's Around the World in 80 Days.

Nothing Approaches or Compares with it. Elegant Scenery, Starting Effects, Magni-cent Costumes, Sparkling Music, A Famor Company.

GRAND AMAZONIAN MARCH. Work of Sept &-TRUE IRBH HEARTS.



UNDER THE DIRECTION OF R. M. GULIOK & CO.

WEEK OF SEPTEMBER 1. Matinees, Wednesday and Saturday.

RUSSELL'S COMEDIANS

In Paul M. Potter's Musical Absurdity,

MUSIC BY W. S. MULLALY,

THE DIRECTORY.

154 NIGHTS BIJOU THEATER, NEW YORK.

THE BEST COMPANY OF COMEDIANS IN AMERICA

Charles Reed, Wm. F. Mack, Chas. V. Seaman, Miss Flora Irwin, Miss Maym Kelso,

Wm. Collier. Alf. Hampton, Joseph Jackson, Miss Rosa France, Miss Josie Sadler, (The Little Fawn) Amelia Glover.

Miss Bessie Cleveland, Lillian Pendergrass, New Ideas!

Burt Haverly,

.Miss May Irwin,

Ignacio Martinetti,

New Music! New Laughs! New Songs! New Dances!

RESERVED SEATS.

September 8-Frank Daniels in "Little Puck."

GRAND OPENING.

NEW CLIPPER THEATER!

Corner Seventh Avenue and New Grant Street-JAMES P. PEET,

MONDAY AFTERNOON, September I, and Every Night.

Matiness Monday, Wednesday and Saturday.

Special Engagement of the Great

McCAFFREY-DEMPSEY ATHLETIC AND BURLESQUE CO.

MATINEES WEDNESDAY AND SATURDAY. 30—BEAUTIFUL LADIES—30 20-ATHLETES AND SPECIALTY ARTISTS-20

Great Boxing Contest Between the Pittsburg Favorites,

Dominick F. McCaffrey,

Who Fought JOHN L. SULLIVAN, seven rounds to a draw at Cincinnata, and defeated CHARLIE MITCHELL at Madison Square Garden, New York, and JAMES RYAN, Champion Middle-Weight Boxer of Pennsylvania.

YEILED PROPHET

TWO GREAT BURLESQUES WILL BE PRESENTED:

Regular Prices, 25c, 50c, 75c, \$1.00. FAUST, JR., With the Shapely and Dashing Burlesque

LOUISE DEMPSEY,

Miss Evalina Dougherty, Eight-Year-Old Daughter of HUGHEY DOUGHERTY, in Her WONDERFUL SPANISH

The Popular Favorite,
MISS GEORGIE BLAKE,
In Swell Songs and Changes. HANLEY & JARVIS, Knock-About Comedians. Pas de Quatre by the

The Eccentric Comedian, GEORGE H. WITMAN. The Peerless Dancer, MISS ALICE WEST, The Irish King, MR. JOHN T. TIERNEY,

4-PREMIER GAIETY SKIRT DANCERS-4
Misses Nettle Stafford, Alice West,
Hattle Bartelle, Dora Warner. The Artistic Song and Dance Lady.
MISS ANNIE GRENGER. Prices, 75, 50 and 25 Cents.

Week of September 8-The Mike McNulty Full Dramatic and Specialty Company. au31-18 THE SECOND ANNUAL EXHIBITION

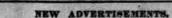
-OF THE-

PITTSBURG EXPOSITION

Will Positively Open

WEDNESDAY, SEPT. 3, AT 8 P. M.

Closes Saturday, Oct. 18, at 11 P. M. Grandest display in all departments ever brought together in this country.



ERECTED FROM FOUNDATION TO TURRET

IN 35 DAYS.

POSITIVELY OPENS

ROOF GARDEN AND THEATER

NEW FIFTH AVENUE MUSEUM.

HARRY DAVIS'

MONDAY, SEPT. 1

AT TO'CLOCK.

COMPLETE, NEW

REFINED

FAMILY RESORT

For Ladies and Children

ITS DOORS PERFECT IN EVERY DETAIL! BEAUTIFUL IN DESIGN Constructed at an outlay of \$40,000, Presenting Entertainment,

NOVEL, WEIRD, WONDERFUL.

LESLIE & HARDMAN

McCLOUD & MELLVILLE

JAMES AND FRANKIE HALL.

MAURITIOUS AND QUEEN,

MISS ALICE GATINEAU.

cading Balladist and Operatic Vocalist, fresh from the stage of high

the King of CHAS. A. MACK.

CARD TO THE PUBLIC. The Fifth Avenue Museum is intended as a Family Resort in every sense of the word. It will be conducted in a manner to command the patronage of all who delight in amusement pure in tone and elevated in character. It will be a house that ladies and children can visit at all times unattended. ies unattended.

The features that will appear in rapid succession, while they will in main be new to the people of Allegheny county, will at all times be of a ture refined and free from all that is offensive to good taste.

On this platform I become a candidate for public favor.

Respectfully, HARRY DAVIS, Proprietor.

THE ATTRACTIONS for the opening week speak THE ROOF CARDEN, First time in SABLON, The famous Man of Mystery, illus-America, bumprous side of life. Plumaged birds, Giant Cockation and meon LISTON, The famous musical special features of Gilmore's Band. wild Sons of ALI BROTHERS, Bedouin Araba, pro-the Desert, ducing an original IN THE HALL OF WONDER.

> STEUDELL, STEUDELL Who illustrates in a manner
> STARTLING, MARVELOUS, PLEASING,
> A century's progress in Electricity.
> This production amuses and instructs, and has called forth encomium
> from Edison binseif.

> Superior to the THE BRAHAMS, and their myster MADAM MYERS, A lovely lady possessing a luxur

MISS LOU WELLER, SILK, from its creation to its completion, beautifully illustrated by

PROF. WALLACE. 100-NEW WONDERS-100

A FULL ORCHESTRA UNDER THE LEADERSHIP OF PROF. WILLIAM J. DAVIS.

Handsome Parior and Toilet Rooms, with matrons in attendance, for the convenience of Ladies and Children, 10 CENTS! ADMISSION TO ALL TEN CENTS!

Next Week-First time in America, the Lady Venetian Troubadours, ten in number.

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LIBERTY STREET.

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EVERY ONE AS GOOD AS GOLD

VISITORS TO THE EXPOSITION

And strangers will find our only display in our immense sales-

All Goods Delivered Free That are sold within a radius of 100 miles. You are cordially

headquarters while in the city. OUR NEW FEATURE

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All carpets purchased at our store we will

MAKE, SEW AND LAY

Free of any charge to you. Residents outside of the two cities are requested to bring their measures with them. We will attend to the rest.

GHAMBER

SUITS.

This year we shall revolutionize

the trade in Chamber Suits.

Our house for many years has

been the leader in this branch,

but this season we have simply

outdone ourselves, and you may

look for novelties that will be

a genuine surprise to you.

Prices from



OUR PARLOR FURNITURE.

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To young people contemplating matrimony. We will take spe-cial pains to furnish your home

complete on the most liberal

terms and easiest payments.

Do not fail to see our stock and

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There is positively no end to our variety of Parlor Suits, embracing as it does every suitable material, every stylish shape, and the most serviceable and stylish colors. Easy chairs and Rockers in every style and shape that the ingenuity of man can suggest. Prices from \$28 to \$250 per suit.



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Comprise five floors of space, size 32x125 feet; elevators to every floor; the entire space being devoted to the showing of goods alone, the warehouse being entirely separate. Nowhere in the universe is there a larger display, and we can show anything in the

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If there is one thing more than another that every good housekeeper looks after it is the bedding, and the next important thing is where to buy it. Our facilities for the manufacturing of mattresses, makes us stand

Without a Peer

In this line, and as for Springs we laugh at the so-called com-



In these days of limited space, families have to resort to the saving of room, and in no way can this be utilized as well as by the use of this very ingenious invention. We have everything that is reliable in this line, and you

Must Not Fail To see the largest and most

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