
a WEEKLY JOURNAL OF PRACTICAL INFORMATION, ART, SCIENCE, MECHANICS, CHEMISTRT, AND MANUFACTURES.
 THE GRAND CENTRAL RAILWAY DEPOT. ashes. The farmers have fled out of the ash-covered country planted in a richly manured soil and in warm, sheltered poWe publish herewith an accurate engraving of the interior sides with their cattle, in quest of, pastures not yet destroyed sitions. In habit, the plant is more robust than of its conof the depot at 42 d street, New York city, built for the ac- by the scoria; but with what chance of saving their live igeners, if we except $s$. augusta, which frequently attains a


THE GRAND CENTRAL DEPOT, NEW YORK CITY.
commodation of the New York Central and Hudson River, stock does not appear. To all appearance, the present erupNew York and Harlem, and New York and New Haven Rail-| tion seems likely to become a calamitous event for Iceland.' ways. As we have already fulls described this remarkable structure, there is no need to do more than recapitulate its proportions, which are 6.52 feet in length and 199 feet 2 inches in width. The roof is supported on 32 semicircular trusses, which are spaced 20 feet 4 inches between centers, extend ing from a point 2 feet below the rails to an elevation of 04 feet from the springing line to the extrados of the arch. Each truss has at its foot two tie rods $2 \frac{d}{d}$ inches in diameter, with a turn buckle at the nid-length. The pitch of the roof is formed by rafters secured to the top chord of the arch
The trueses weigh about forty tuns each, and were raised in sections by means of a movable staging 80 feet high, 160 feet long, and 30 feet wide, moving on ways, and shifted along step by step as the work of raising the trusses progressed. About $8,000,000 \mathrm{lbs}$. of iron were used in the structure, $10,000,000$ bricks, and 20,000 barrels of cement.
The car house is lighted through three skylights extending over the entire length of the roof-one on the center, double pitched, and a single one on each side of the center, and having altogether 80,000 square feet of glass-nearly two acres. The north end is closed by an iron front, the south end by the building containing the principal offices of the companits.
The roof covers nearly three acres, the station itself about four acres. The station has separate tracks for the trains of each company, besides those for the Fourth avenue horse cars, which run into and to and from this station, which was opened for traffic October 7, 1871. The gas burners of the building are lighted at night by electricity, 25,000 feet of electric wire being used, and 20,000 feet of gas pipe. The 144 steam radiators are heated ' y 15 miles of steam pipe. The roof is ventilated by six lines of ventilating slats, eet high and 8 inches wide with Z-shaped intervals, 6 tween the slats.

## Great Volcanic Eruption in Iceland

Mr. Magnusson, of Cambridge, England, says:-"On March 29th, the fall of the ashes was so excessive that it covered the ${ }^{3}$ eastern country sides, Jökuldal especially, with a coat six inches at its thickest; and all that day, altnough it was ${ }^{\text {3 }}$ bright and sunny, the people spent in absolute pitch darkness. Fountains and rivulets were dammed by the ashes, and every mountain stream, always of a crystalline purity in Eastern Iceland, where there are neither glaciers nor moraine, ran dark and muddy between banks covered with drifts of

A BEAUTIFUL PALM TREE.
The plant shown in our engraving is one of the most graceful members of the class, and diserves to become popular in

our gardens and conservatories as a striking and decorative oliage plant. It is sufficiently hardy to withstand our cli mate during the summer months, and grows freely when
hight of from 30 to 40 feet. treated as a warm conservatory plant. Both the last named plants are chieffr remarkable for their fine foliage; but some of the smaller growing kinds, as s. ovata and the even more beautiful s. regina, are well known lowering plants, generally grown in a warm conservatory or in a humid plant stove. These species will, however, both grow and flower well in warm, sheltered positions out-of doors, and form striking objects massed along with musas, ${ }_{\text {, palms, }}$ and the larger arads. Our illustration gives an ex , cellent idea of the noble port assumed by a well grown spe cimen of strelitzia Nicolai, which is common as a half-hardy foliage plant in many continental gardens.

## Rallway Sped on Horseback.

A fifty mile riding match lately came off at San Francisco, Cal. between two noted riders, Mowrey and Smith. The Alta says: It was a contest, as advertised, for $\$ 1,000$ a side, with the conditions that each man should have ten horses, and be compelled to change horses, or mount and dismount, in each mile.

Both men were of a tallish, slender build, well adapted to long hours on horseback. Of the two, Mowrey exhibited greater strength and activity, and as an expert in the mode of mounting and dismounting is by far Smith's superior. An evidence of this was clearly perceptible in the fact that he gained on an average not less than two seconds at every change. His style was that of throwing himself from the saddle by a spring from his seat, and in mounting to spring from the ground, assisted by the horn of the saddle and catch his seat while the horse was frequently under ful headway. Added to this, he was greatly assisted by having a helper on horseback, who invariably accompanied him on the start and outcome by checking and starting his horse, while Mowrey had only to jump on and off. On the other hand, Smith had little or no assistance, except the equipage of his saddle, which was brought into requisition in a man ner that showed conclusively his appreciation of its desirable assistance.
Mowrey came in a quarter of a mile ahead in 2 hours, 2 minutes, $36 \frac{1}{2}$ seconds, Smith being 16 seconds behind. The quickest mile wes made in 2.04 minutes, the slowest in 3015 minutes.

A GOOD welding composition is made of boras fused with one sixteenth its weight of sal ammoniac, cooled, pulverized, and combined with an equal weight of quick lime. The compound is sprinkled on the red hot iron, and the latter re placedin the fire

