The New Transandine Telegraph Lines.

The direct telegraph lines extend-

ing from Buenos Ayres (Argentina)

to Valparaiso and Santiago (Chile),

which have been established by the

Pacific and European Telegraph

Company, of which Sir John Pen-

der is chairman, were opened for

traffic recently. From the Atlantic

coast to Uspallata on the spur of

the Andes, a distance of about 697

miles, the line is aerial on iron poles,

and is of the latest type of con-

struction. Thence to Rio Blanco,

in Chile, underground cables are

laid in about 75 miles of trench

through the highest and wildest

part of the route, where heavy

snow falls in winter would sweep away any telegraphs erected above

ground. The lines from Rio

Blanco to Valparaiso and the branch to Santiago, consisting to-

gether of about 160 miles, are aerial.

The total length of the line, which

extends from the Atlantic to the

Pacific coast, is about 927 miles.

Arrangements have been made by

which the telegraph lines have been

erected adjacent to the railway

lines, and exceptional facilities are

THE CALIFORNIA MIDWINTER FAIR.

edifice which we illustrate is the Mechanic Arts ground, and the pinnacles rise to the height of 120 feet.

California is the wonderland of America, with its building, with allegorical fountain in the fore-glorious climate, its remarkable fertility, its Yosemite ground. The building was designed by Mr. Edward The oriental style of architecture and brilliant Valley, and notable mountains. When the Eastern R. Swain. It is built in the East Indian style. The coloring gives a suggestion of age which is very pleas-States are wrapped in snow the inhabitants of favored length of the building is 330 feet and the width is 160 ing. The total expense of the buildings has been about \$1,500,000.

California are in the midst of a semi-tropical garden enjoying all the delights of spring and early summer. This attracts large numbers of people from all parts of the world, who visit California for health and pleasure. When Mr. M. H. De Young, vice-president of the Columbian Commission, proposed that a midwinter fair be held on the Pacific coast, the idea was everywhere received with enthusiasm. The subject was first broached at a meeting held in the California Club, of Chicago, on May 31, 1893. Notwithstanding the financial depression of the country, ground was broken on the 24th of August last, and five months afterward, on January 27, 1894, the fair was ready and opened to the public.

Golden Gate Park, San Francisco, is in reality a sea-girt garden, filled with the choicest blooms of all lands. This park possesses an individuality of its own which renders it unique among the pleasure grounds of the world. The park is laid out in a highly artistic manner, and the profusion of palms suggests Bordighera, Nice, or San Remo. The Midwinter Fair occupies about 160 acres of the park.

We present several views of the

THE CALIFORNIA MIDWINTER FAIR-THE FINE ARTS BUILDING.

grounds and the buildings. In a subsequent issue we feet. The total floor space available for exhibitors is thus afforded for the efficient maintenance of the shall give a view of the Manufactures and Liberal Arts building.

Our bird's eve view shows the dome of the Horticultural and Agricultural building in front at the left; To the right rises the prominent collection of domes of the main body of the building is 42 feet above the Submarine, and the Eastern Telegraph Companies,

and minarets which covers the Administration building; at the rear of this is the Firth wheel and the Mechanic Arts building. The other buildings are the Fine and Decorative Arts building, Festival Hall, buildings for concessions, etc.

The Administration building is situated on the southern side of the Grand Court, and its oriental architecture and coloring comports admirably with the luxuriance of the surrounding vegetation. This building was designed by A. Page Brown, and the architectural style may be said to be a combination of central Indian and Siamese. The main structure rises from a terrace, and the leading feature of the building is the richly ornamented dome, which is 135 feet in height and 50 feet in diameter. The total floor area of the building is 16,800 feet. This dome is brilliantly illuminated at night.

The Art building was designed by Mr. C. C. Mc-It is a modern

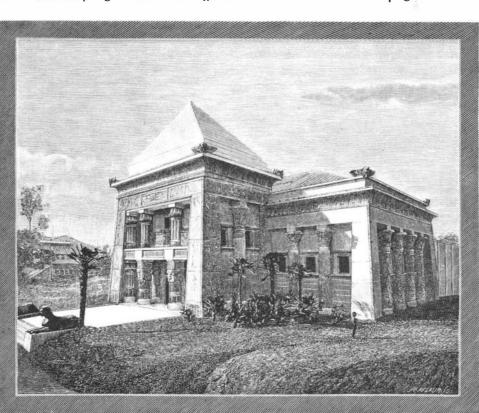
37,041 square feet. It has also an annex measuring 249 by 45 feet, containing boilers and engines. In the central part of the main floor are two great tanks 30 feet each other. The opening of this system is of great long and 25 feet wide. Around them are gathered the importance to the West Coast of America Telegraph behind rises the Manufactures and Liberal Arts build- exhibit of steam and other pumps. The exterior of Company, as it places their cables in direct connection ing, flanked by the electric tower, 250 feet in height. the building is elaborately ornamented. The cresting with those of the Western and Brazilian, the Brazilian

wires. There is only one station, which is at Mendoza, but Buenos Ayres and Valparaiso work direct with

affording a continuous chain of telegraphs in British hands from England and the Continent to the Pacific coast of South America. The construction of this line was rendered necessary to enable the English Submarine Telegraph Companies to transmit with great rapidity the important traffic to and from the west coast of South America, where it is dealt with by the cable of the West Coast of America Company.

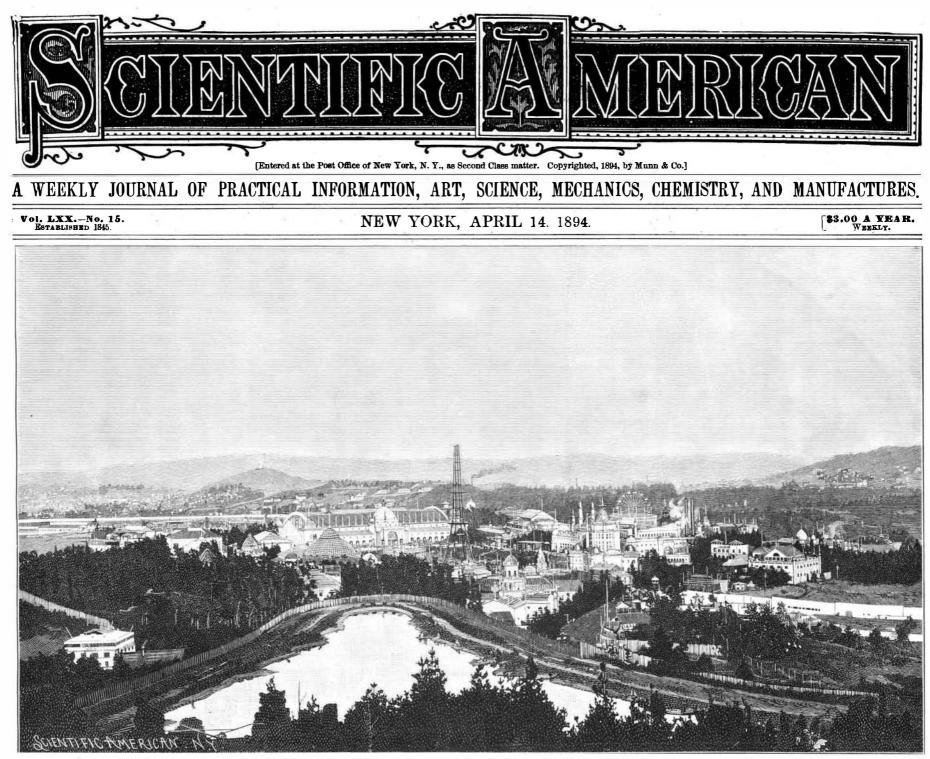
Dirt in Milk.

The author puts 1 liter of milk from each dealer into a flask closed with a plug of wadding. On its arrival in the laboratory it is transferred to a measuring glass, covered with a piece of filter paper and a glass plate, and allowed to stand for two hours. The milk is then carefully decanted off from the sediment down to about 30 c. c., the residue is made up to 1 liter with pure water, and again allowed to subside for one hour. It is then again drawn off, repeating this proceeding until all the dirt is left in pure water, which is then decanted off to about 100 or 150 c. c. The dirt is then collected in a tared filter, dried, and weighed. The dirt in the milk may be calculated as five times the dry residue. One liter of market milk was found to contain 3 m. grammes dirt at Wurzburg, 3'8 at Leipzig, 9 at Munich, 10.3 at Berlin, and 14.92 at Halle. The richness, of the milk in microphytes was surprising. - Leo. Schulz, Archio fur Hygiene.



Dougal. adaptation of Egpytian architecture, and the coloring is subdued. Like all the other buildings, staff is freely used. The vestibule is very effective. It is 22 feet square and 63 feet high. The interior measurements show that the galleries are 58 feet long and 38 feet wide. Annexes give wall space, so that the available wall space is 2,000 running feet. The structure is fireproof. The approach is of artificial stone, 40 feet wide, flanked by immense sphinxes. The third





THE CALIFORNIA MIDWINTER FAIR-A BIRD'S EYE VIEW.



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THE CALIFORNIA MIDWINTER FAIR-THE MECHANIC ARTS BUILDING.-[See page 232.]