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NEW YORK, SATURDAY, OCTOBER 21, 1893.

Contents.

Table listing contents of the supplement, including 'America's cup, the won by the Vigilant', 'Attendance on Chicago day', 'Bullets as microbe carriers', etc.

TABLE OF CONTENTS OF SCIENTIFIC AMERICAN SUPPLEMENT No. 929.

For the Week Ending October 21, 1893.

Price 10 cents. For sale by all newsdealers.

Table listing contents of the main issue, including 'I. AGRICULTURE.—Manuring Sugar Beets', 'II. ANTHROPOLOGY.—Subterranean Refuges of Gaul', 'III. ASTRONOMY.—Engineering Problems in the Construction of Large Refracting Telescopes', etc.

THE GREAT STORM OF OCTOBER 2.

On October 2 a great storm burst upon the northern coast of the Gulf of Mexico, coming without warning of any kind, although even if such warning had been given the loss of life and property would still have been very great.

The principal damage was done to the region about the mouth of the Mississippi, which includes islands and marshes all of very low level. One of the affected and typical regions, the St. Bernard or Lake Borgne Marsh, is a dead level ocean marsh, with more water than land, covering 1,200 square miles.

The wind, blowing from the Gulf, forced the water back into the bayous and lakes, where it gradually rose and began to pour back into the Gulf and Mississippi over the intervening territory. Rain had fallen all Sunday, with a strong wind, and shortly after midnight the storm broke in its fury, the water rapidly rose, 9 feet of water poured over the levees, the low regions were swept by the sea and submerged many feet; houses were carried away by the wholesale and lives and property were destroyed on all sides.

In Mobile and its vicinity much damage was also done; but the appalling catastrophe at the mouth of the Mississippi outstrips and overshadows it completely.

The Saw Mill is Civilization's Pioneer Machine.

Professor Tyndall says that scientific researches find man wandering nude along the sea shores eating the raw oyster as he went, never dreaming that the tree under which he took shelter from the rigor of the storm contained elements that would warm his shivering frame. And again we find fragments of human bones alongside those of some wild beast, and stone weapons such as prehistoric man used, where the two probably fell in single combat for the possession of a cavern for a home.

The fact was that they did not know then how to make a circular saw of any size large enough to saw mill logs.

At the centennial I saw one of the band sawmills, on the judges' day, saw of inch lumber, one log at the rate of ten thousand feet of lumber in one hour, and I saw it drop a board sixteen feet long every three seconds, and the saw cutting only a 1/8 inch kerf. I was told, however, that in regular work in the West 100,000 feet was often sawn inside of ten hours with a band sawmill.

How to Get Rid of Salt in Land Reclaimed from the Sea.

Dr. C. V. Riley, of the Department of Agriculture, to whom we referred the above subject for information, writes as follows:

I received a note from you requesting an answer to a question asked by one of your subscribers, as to what process should be used to get rid of the salt in land that has been reclaimed from the sea and dried, and what plants can be set therein to the greatest advantage. The question cannot be intelligently answered without more detailed information as to the nature of the soil and the latitude.

These will all grow in northern latitudes, and the salt marsh grasses, when they once get a good foothold, will thrive in such soil. The barberries and the species of euonymus, especially Euonymus japonica, are known to thrive in salty lands.

Quebracho Wood for Railway Sleepers.

The Quebracho Colorado wood is described by Georges Poulet as being of a blood red color, very bright when freshly cut. It is found in great abundance in large forests in North Argentina. The wood so far has only been appreciated in Europe by tanners, as it contains a large proportion (said to vary from 15 to 20 per cent) of its weight in tannin, to the presence of which the author ascribes its extraordinary durability.

It weighs about 78 pounds per cubic foot, does not decay, and is not compressible, so that holes must be bored clear through the wood, and equal to the diameter of the bolts, etc., used.

It is calculated by the author that a sawn sleeper, f. o. b. at the port of shipment, would cost with freight to Europe (reckoning eight sleepers to the ton) about \$1.55.

Peroxide of Hydrogen as a Water Purifier.

Peroxide of hydrogen has long been recognized as a powerful disinfectant, and has been recommended and used with advantage as a gargle in cases of diphtheria, and in this respect has recently been again brought forward as a most useful means of protection against this disease during an epidemic. But it has also been used as a handy method of removing bacteria from drinking water for household purposes during outbreaks of cholera or other zymotic diseases.