short and stiff metallic wire. The weight falls down a rule,

graduated on one of its edges, and covered with smoke black.

The tuning fork is set in vibration automatically at the com-

mencement of its fall, and it inscribes on the fixed rule a

SPIDER ENGINEERING.

BY GEO. M. HOPKINS. If Cleopatra's Needle, now about to be erected in London, were animated and capable of a thousand contortions, and if it were required of a man to suspend it vertically with- sinuous line, inspection of which affords an easy demonstra- companying engraving, which we copy from Engineering, out mechanical or other aid, we would then have a case par- | tion of the laws of the fall of bodies. By mounting on the | conveys a good idea of this handsome building. allel with the one described below.

Some time since it was the fortune of the writer to witness the curious scene illustrated by the accompanying engraving. A snake about twelve inches long, of the species Coluber eximius, commonly called the milk snake, became in some manner entangled in the web of a common house spider, which was doubtless prepared for smaller prey. The spider, with the utmost energy, began to throw its web about the head and mouth of the snake until the latter became stupefied and unable to detach itself from the snare of its captor. Whether this state was altogether due to suffocation or to bites inflicted by the spider, I cannot state. The web which was formed with such great rapidity was, for a short distance above the head of the snake, twisted into a stout thread, which was connected with guys and stays running in all possible directions, and attached to the shelf above and brackets on either side. These guys the spider constantly strengthened, and also shortened, so as to raise the snake from the floor, gradually but steadily and surely. The snake, although moving, seemed to be incapable of resisting the operations of the spider, and was raised until onlyabout one fourth of its length rested on the floor.

It would be interesting to know how the affair would have termi-

continued for several hours, and the snake was finally released by one of the uninterested. 0.0.

Gravity Indicator.

A new apparatus for experimental verification of the laws of falling bodies is described in the Journal de Physique, by M. Lebourg. A flattened cylindrico-conical weight, guided in its fall, like that of General Morin's apparatus, carries,



MILK SNAKE AND SPIDER.

their number of vibrations, and even determine the absolute height of the sound produced.

THE ALGERIAN PALACE AT THE PARIS EXPOSITION.

The Algerian palace, on the grounds of the Trocadéro, is now nearly completed, and will form one of the finest of the exposition buildings. The plan is eminently appropriate, and the tiles and mosaics used so lavishly in the decoration

nated had there been no interruption. The raising process apparatus several tuning forks one may compare together too numerous to mention, all, however, distantly related to the fact that the earth is an "explosive globe," which is

balanced by motion, and that that motion is "the equivalent of cohesiveness." All of which, so far as any knowledge we possess to the contrary regarding electric lines and explosive earths, may be quite true.

KRUPP's establishment at Essen employs in the foundry alone 8,500 men. In the works are 298 boilers and as many instead of a style, a vertical tuning fork, furnished with a are fac-similes of those employed in ancient Moorish palaces, steam engines, having together 25,000 horse power.



Mansillian Science.

rendering the structure an interesting architectural study as

well as an ornament to the exposition grounds. In the in-

terior are a courtyard and fountain, around which run the

courts which will contain the Algerian exhibits. The ac-

As an example of how easy an affair it is to invent new sciences in this progressive age, Mr. Richard Mansill's theory of planetary me teorology is monumental. Given a scrapbook of records of meteorological phenomena, a nautical almanac, and a vivid imagination, and where is the scientist who cannot propound an entirely new and original theory to account for every vagary of the clerk of the weather? Mr. Richard Mansill, however, advances beyond this goal of the average intellect, and to the above adds an electrical hvpothesis, whereby he galvanizes into existence the defunct science of astrology, besides a remarkable amount of information the entire novelty of which no one will, for a moment, dispute.

"The base of the system," he says, "is that all planets, comets, and satellites go through a reversed change of motion, volume, and density at their perihelions and aphelions," and this is due to "reciprocating electric currents or lines that exist and undulate between the planetary bodies, and which currents are used to carry on these planetary changes with." When these passages occur the electric line which exists and undulates and reciprocates causes volcanoes and earthquakes, tidal waves, cholera, and epizoëtics, besides other evils

THE ALGERIAN PALACE AT THE PARIS EXPOSITION.

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