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No. 385,

For the week ending June 3, 1882.

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THE TOTAL SOLAR ECLIPSE.

The solar eclipse of the 17th of May was successfully observed by English, French, and Italian parties at Soham, a village in Lower Egypt, on the Nile. The duration of totality at that point was only seventy-two seconds, but the observers did prompt and efficient work in this short space of time.

The precious seconds when the sun's face was hidden by the moon's dark shadow revealed in the first place a comet near the sun. It could not be Comet alpha or Comet Wells, for this much talked of visitor to northern skies does not reach perihelion until the 10th of June, and has, therefore, three weeks' time in which to speed its course to the near neighborhood of the great luminary.

The second item coming from the eclipse observers is more astounding than the first, for the darkening of the lines of the spectrum, as seen by the French astronomers, gives indication of a lunar atmosphere. If this observation is substantiated there will be a revolution in existing ideas concerning lunar physics.

One more meager item closes the first bulletin from the eclipse expeditions. It is that the spectrum of the corona was photographed for the first time. We may, therefore, hope for increased knowledge of the constitution of the sun's magnificent appendage, seen only in a total eclipse, so grandly beautiful as to make the beholder feel like veiling his eyes in the celestial presence.

The English eclipse expedition, observing at Soham, with Professor Lockyer as the chief director, laid out an organized plan of operations. Some of their points of observation were to note if the abundance and activity of the rosy protuberances gave proof of the present disturbed condition of the sun while passing through its maximum period of sun spots.

Photography was greatly relied upon in the solution of these intricate problems, and so much have methods improved in the rapidity with which the image can be impressed on the sensitized plate that seconds will now record more than minutes did twenty years ago.

There is every reason to hope for noteworthy results to be obtained from the recent solar eclipse with the best astronomical instruments the world can furnish, and with astronomers of world-wide renown to use them effectually under the cloudless sky and in the serene atmosphere of the station on the Nile.

on the thin line of totality, and to wait for fuller details and photographs that will tell more of the good news.

Professor Lockyer and his assistants spent three months in hard work to prepare for seventy-two seconds of observation. They traveled thousands of miles and transported thirty cases of instruments to aid them in the work.

INSATIATE VAMPIRES IN MICHIGAN.

It is a fortunate circumstance that Mr. Burrows did not content himself with denouncing in general terms, in his peculiarly forceful style, "the bands of patent right inquisitors which infest the country and plunder the people."

Mr. Burrows recited twenty-eight "well authenticated instances of outrages" upon people of his district and State. About half of these involved the collection of a royalty of \$100 for the use of the Birdsall clover huller, "valued at \$450."

Mr. J. M. Failling refused to pay the royalty demanded for using a huller; was sued for it; and learned at a cost of \$417 that the United States District Court of the Eastern District of Michigan knew more of the value of the patent than he did.

It would seem to be a specially annoying feature of these "outrages" that the United States Courts are in substantial collusion with the persecutors and sustain their iniquitous demands.

Another remarkable feature of these cases is the curious fascination which clover hulling machines seem to have upon the minds of Mr. Burrows' constituents. They will use them even at the risk of having to pay royalty therefor to the "vampires" who own the patents.

There seem to be several varieties of these fascinating clover hullers, for several of different makes serve as the basis of "well authenticated outrages." In some cases royalties as high as \$125 have been demanded for their use; and those who have resisted the "unjust exaction" have had to pay it in the end, with heavy court expenses added.

Other cases of "outrage" were based on claims of royalty for the use of a circular saw guide, a sawmill dog with attachments, and other trifles, not exceeding \$75 in value.

It is a notable circumstance that in every one of the cases litigated—save one which is still pending—the courts sustained the patentees, and the innocent victims of judicial inquisition fared worse than those who settled at once with the vampires; from which circumstance Mr. Burrows would apparently have it understood that Congress only can shield the people from the plundering raids of patent right inquisitors.

In the course of his speech Mr. Burrows laid special stress upon the necessity of freeing from "persecution" the purchasers in good faith, not only of clover hullers but of patent fence gates, barbed wire fence, drive-wells, "and a hundred other articles necessary to the farmers of the great West," but none of these figure in his list of "well authenticated outrages."

LEGISLATIVE CONFISCATION.

In the House of Representatives, April 28, Mr. Caswell asked consent to report from the Committee of Patents, as a substitute for House bill No. 784, a bill (H. R., No. 6018), providing that no action for damages or proceeding in equity shall be sustained, nor shall the party be held liable under