

THE GREAT MICHIGAN FIRE.

A correspondent of the *Fireman's Journal*, who has lately gone over the territory devastated by the great fire in the forests of Michigan last fall, says his observations are conclusive that phenomena aside from the ordinary conditions of combustion were developed. In the first place the fire created at least two veritable storm centers which had the essential features of storms, and especially the spiral winds. The evidence is confirmatory of the belief that this storm center, after it became fully developed, consisted of a heated body of air or gas in a state of combustion, which was constantly fed by the smoke and vapor driven to the center by the whirling winds and gases generated in the combustion of the pines and other resinous woods. This body of air, or burning gas, if it may be so called, by its heat acquired an accumulative force, but by the rapid forward motion of the fire was sucked forward and devoured, actually preceding the fire proper. It is evident that this body was of intense heat, possibly as great as 400° Fahr., at which point oxygen and carbon unite. That such a body of luminous vapor existed, detached from the fire, is asserted by many who saw it from a distance, and by those who were under it, but who escaped from the fact that it passed above their places.

The idea is further sustained by the fact that the fire jumped whole patches of inflammable slashings, and alighted beyond, lifting and falling in its forward motion like a balloon touching the earth. Fences in the center of broad fields burst into a blaze as if by explosion, and others nearer the fire escaped. A man in fighting the fire took off his trousers, fearing they would catch fire and burn him up, and left them in a furrow in the middle of a field remote from any combustible material. When he went to get them he found them burned, and six quarters dollars that were in the pocket melted together. A set of spoons were served the same way at another place.

Mrs. Luck and two children were burned to ashes, noting but their bones remaining in the middle of the road, one hundred feet from any heavy timber. Green timber was dried and burned, and perhaps the most conclusive evidence was the apparently spontaneous appearance of fire in stumps and fences where no sparks were falling. These blazes appeared of white light and indicated a chemical union of carbon and oxygen. Another general feature is the fact that the fire appeared to move forward in parallel lines of varying width, and that in these lines everything was burned and frequently to ashes. At the edge of the track a fence would be burned square off, just as though it had been cut or sawed perpendicularly; a house would be taken and the barn left; a wagon and a fanning mill were within five feet of each other, and the wagon was burned to ashes and the fanning mill not charred. It would be impossible under ordinary circumstances, to burn a wagon without piling combustible material over it, but of this nothing but the iron was left.

Finally, the storm and fire disappeared simultaneously; that is to say the fire was dependent upon the storm, or secondary to it—that it was prevented from lingering in the track or from burning sideways. In from two to three hours the fire was practically out where it had passed, indicating that the prime cause of the rapid combustion was in the storm which had passed, and which passing, perhaps, carried in its wake a condition of atmosphere opposed to combustion. This hypothesis explains pretty much all the phenomena except the balls of fire, which exactly correspond with what is known as "ball lightning," but which is a form of electricity wholly discredited by some, but recognized by Professor Loewen.

The statements of Ballentine and Kabocko are confirmatory of this ball lightning idea, and contradictory of the idea that these lights arose from the intense heat, or they themselves could not have survived it. Other statements are to the effect that this ball of fire fell on the ground and exploded, running in all directions. This is explained by some who were not present, who say that it was but the resinous cones of the pines ignited, carried by the wind, falling, scattering the burning pitch, about them; but it should be remembered that those people who

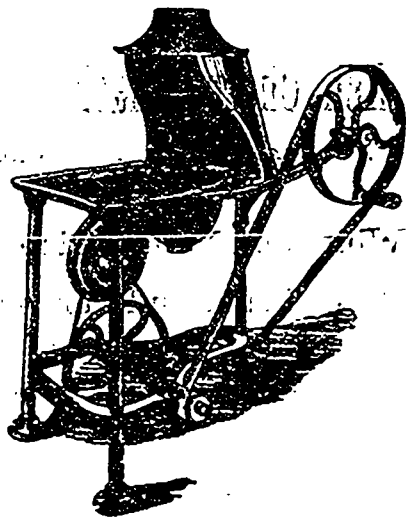
saw this phenomenon are men who have lived amid forest fires all their lives and have seen all the ordinary phenomena, and are not of a class exactly visionary or imaginative. It is fair to assume the possibility of electrical phenomena incidental to this fire storm, both from the fact that it was a great commotion in the elements and because it differed from a storm only in the facts of the absence of rain and presence of fire. —*Scientific American.*

Botanic Gardens.

In an article on the approaching Forestry Congress in Montreal the *Gazette* says:—There is one branch of the subject which, we think, has never had the attention in the Dominion which is due it—we mean that of botanic gardens. Some of the colonies have institutions for the study of forestry, with a museum and botanic garden attached, which have been productive of much good. With us but little has yet been attempted in this direction, though Halifax has set a good example. Why should we not have at Montreal as a part of our beautiful park, a garden, representative of the various forest wealth of Canada? We would respectfully suggest that some of the members of the Congress take up this proposition and set it, in all its details, before the authorities and the public. A garden of that kind would not only do much for the furtherance of the study of forest botany, but would be a feature of our city, most attractive both to residents and strangers.

The Hon. M. C. George said in Congress last April that the coast range forests of Oregon and Washington territory embrace an area of 17,000,000 acres. This, he alleged, is ten to twenty times as many acres as are in the best timbered lands of Wisconsin, Michigan or Pennsylvania. The logs of the sea that creep up the valleys are mainly the cause of the astonishing growth of the coast range forests.

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