

Carnegie Hall at which addresses will be made by President Cleveland, Prof. Jacobi and others, and afterwards there will be a reception at the building of the Academy, the corner stone of which was laid by President Cleveland in 1889.

BRANCHES of the British Medical Association are being formed in the leading cities of Canada as a preliminary of the visit of the Association next year. Montreal, Ottawa, Halifax and Winnipeg have already strong local branches.

UNIVERSITY AND EDUCATIONAL NEWS.

THE cablegram report that Alfred Nobel had left his fortune to Stockholm University is now said to be incorrect. A cablegram from Stockholm, dated December 31st, states that the fortune, valued at \$10,000,000, is almost entirely bequeathed for the foundation of an international fund for the advancement of scientific research.

THE Stevens Institute of Technology, Hoboken, N. J., will celebrate its twenty-fifth anniversary on February 18th and 19th.

PRESIDENT HARPER, of the University of Chicago, has announced a deficit for the year of \$48,000, and that retrenchment will be necessary especially in the direction of scholarships and assistance to students.

GEN. G. W. C. LEE has resigned from the presidency of Washington and Lee University, to take effect at the end of the academic year.

AT the inauguration of the Lyons University, the rector, M. Compayré, announced a donation to the University of £4,000. The *British Medical Journal* states that the donor is M. Auguste Falcouz, a Lyons banker. The interest of this sum is to be disposed of as follows: Every two years a prize of £40 sterling will be given to the students of each of the four faculties—literature, science, law and medicine—who write the best essay on a current subject. All French students under 30 years of age can compete. The subject of the essay will be chosen by the Council of the Lyons University a year in advance. Every two years instruments for the science and medical faculties will also be bought. When fifty years have elapsed,

the Lyons University will have entire control over the capital in order to be able to meet the demands of scientific progress.

THE Austrian government has brought in a bill on the salaries of university professors. The present salary of a professor is now about \$1,200, and he receives in addition the fees from students attending his courses. It is now proposed to raise somewhat the fixed salaries and let the fees of students go to the state. This would equalize the salaries of professors, but is being opposed especially by professors in the medical school whose required courses are attended by a large number of students.

WE recently referred to the action of the regents of the University of the State of New York making it illegal for colleges of the State to give the degrees A. B. and Ph. D. *causa honoris*. When colleges in other states either voluntarily or by compulsion cease giving the Ph. D. degree *causa honoris* and for study *in absentia*, those who wish to possess this 'honor' without the education it represents will need to go to the newly founded 'university' at Buenos Ayres. It appears that they can there receive the degree by a course of study in extent (information regarding its thoroughness is lacking) about equal to that in an American college as far as the end of the sophomore year. The candidates for the doctorate, it appears, need not know any mathematics, but they must study one science—geography, and that of both the 'old and new continents.'

A SECOND university will be opened in Japan during the present year. It will be at Kyoto and will for the present only include professional schools. It is also reported that a Dutch university will be established in Pretoria. An English university at Cape Town seems to be much needed.

PROF. B. HATSHECK, of Prague, has been called to the chair of zoology in the University of Vienna, vacant by the resignation of Prof. K. Claus. Prof. Th. Curtius, of Kiel, has been called to the chair of chemistry at Bonn, vacant through the death of Kekulé. Dr. P. E. Study, associate professor of mathematics at Bonn, has been called to the chair of mathematics at Greifswald. Dr. Schüsler, of the

Polytechnic Institute of Graz, has been promoted to an assistant professorship of Geometry and Dr. W. Felix, of the University of Zurich, to an assistant professorship of anatomy.

DISCUSSION AND CORRESPONDENCE.

CLOUDS OVER A FIRE.

ON Tuesday, December 1st, I had an excellent opportunity to observe the formation of cumulus clouds over the smoke from a large fire. The morning was clear, with the exception of a few scattered strato-cumulus and cumulus clouds near the horizon. The wind was northwest and blowing at about 12-15 miles an hour. The fire was in the coal pockets of the Boston and Maine Railroad, in Charlestown, and burned fiercely for some hours, sending up immense volumes of smoke which were blown off to sea across the city of Boston. The cloud, as I observed it, looking from the southwest and thus obtaining a view at right angles to the smoke, was formed at some little distance to the southeast of the fire, and over a part of the smoke, which rose up higher than the rest, as is shown in Fig. 1. It was distinctly a cumulus, but its base and a good deal of its main portion were often obscured by the smoke. Fig. 2 is intended to give some idea of what was observed as the second stage in the phenomenon. The whole body of the cloud has been carried to the southeast, further away from the fire, and the effect of the stronger upper winds is seen in the blowing forward of the top of the cloud. At this stage the cloud could plainly be seen to be dissolving as it descended to lower levels.

In Fig. 3 we have represented, to the right, the third stage of the cloud, which is now rapidly diminishing in size and being carried away by the wind, while nearer the fire a new cumulus has been formed. It was noted that the formation of the cumulus in its first position, as shown in Fig. 1 and at the left of Fig. 3, was intermittent. There was not always a cloud at that point, but one grew whenever there was an especially active ascent of the smoke, and the position of this first cloud, at its beginning, was always the same with reference to the fire and the trail of smoke.

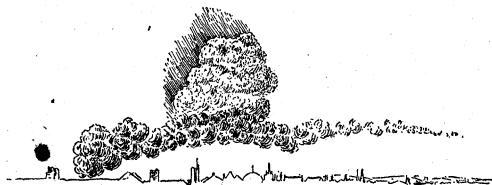


Fig. 1.



Fig. 2.



Fig. 3.

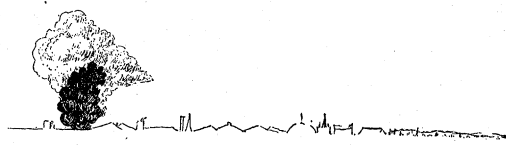


Fig. 4.

There seems little need of comment on this simple but interesting phenomenon. The conditions for cloud formation were not reached vertically over the fire, for the smoke was blown to leeward at once, and the warmed air did not rise high enough to reach its dew-point until it had been blown a-quarter or a-half of a mile to the southeast. For this reason Figs. 1, 2 and 3 show the cloud to the right of the fire. Looked at down the wind, *i. e.*, from the northwest, the appearance of smoke and cloud were as shown in Fig. 4.

It may be interesting to note in this connection the case of cloud formation over a fire mentioned by Espy in his *Fourth Meteorological Report*. The observer quoted by Espy was on the top of Mt. Monadnock, N. H., and saw the growth of a cumulus cloud over a fire of brush on the lowland. The cloud increased in size, and finally gave a shower of rain over a limited area.

The accompanying figures were drawn by