

SCIENCE.

FRIDAY, DECEMBER 28, 1883.

THE CHIEF SIGNAL-OFFICER'S REPORT.

THE report proper of the chief signal-officer of the army for the year ending June 30, 1883, has been published in advance of the complete volume, which will contain the usual appendices. When compared with those of previous years, it presents a marked and most gratifying contrast. The useless and tiresome repetition of much that has appeared regularly since the organization of the service is no longer indulged in; and, in fact, the present report is brief, fresh, and vigorous. It is pleasant to see, that, among the various topics discussed, the first place is given to 'Instruction in meteorology.' Although somewhat crippled by lack of sufficient appropriation, this work has not been allowed to retrograde; and the encouraging fact is noted, that, out of a hundred and seventy-two enlistments made during the past two years, fifty-three were college graduates.

Gen. Hazen argues ably and pointedly against the inadequate provision made by the last Congress. The separation of the signal-service from the army proper, as far as its support from the general appropriation goes, undoubtedly left the service in a worse condition, even, than was intended by those who sought to reduce its expenditures. The result has been, that a number of stations have necessarily been closed, and much important work of the weather bureau has been suspended. It is certainly to be hoped that it may receive more generous treatment at the hands of the present Congress.

An interesting *résumé* of the scientific work of the weather bureau is given, which indicates a commendable activity in that direction. One of the most important announcements is, that a new standard of thermometry has been adopted "which no longer agrees with that of the Yale

college observatory, but approaches more nearly to that of the International bureau of weights and measures." Another is, that steps have been taken to inaugurate in the immediate future a series of elaborate observations upon atmospheric electricity. The continuation of the publication of 'Professional papers' by members of the scientific corps is noted, one of the most important of which is that on 'Movements of the atmosphere,' by Professor Ferrel. It is gratifying to observe throughout the report, that scientific meteorology is receiving a recognition to a degree much greater than formerly.

A brief history of the unfortunate Greeley expedition is presented, and the statement made that it is intended to apply for an appropriation to enable another relief expedition to be sent out in 1884.

The report covers twenty-two pages, instead of three or four times that number, as was the case in previous years; but, as a report of progress for the year, it is much more valuable than its predecessors. A similarly judicious treatment of the appendices and meteorological summaries, which will follow this report, would bring the whole into a much more useful and manageable form, and would not be the least important of the many reforms introduced into the service by its present chief.

ROMALEA MICROPTERA.

SHOULD the return of spring be early, and the winter just passed an open one, a Rambler in the meadows of southern Louisiana is very likely, during the middle of February, or perhaps even earlier, to have his attention drawn to curious little colonies of red and black grasshoppers.

These are the young of *Romalea microptera*. Until this summer I never saw a living adult specimen of this handsome insect, and my examination of it had been confined to a few individuals in alcohol. No sooner, however, had I thoroughly examined one of these little