

equatorial telescope, resulted in the discovery by the present writer of several additional objects of the same class. Still more recently, Dr. Copeland, during a journey to the Andes, has extended the list by the discovery of some similar stars in the southern heavens.

Among the photographic observations which have been undertaken at the Harvard College Observatory, as a memorial to the late Prof. Henry Draper, are included a series of photographs of the spectra of all moderately bright stars visible in the latitude of the Observatory. A recent photograph of the region in Cygnus, previously known to contain four spectra exhibiting bright lines, has served to bring to our knowledge four other spectra of the same kind. One of these is that of the comparatively bright star P Cygni, in which bright lines, apparently due to hydrogen, are distinctly visible. This phenomenon recalls the circumstances of the outburst of light in the star T Coronæ, especially when the former history of P Cygni is considered. According to Schönfeld, it first attracted attention, as an apparently new star, in 1600, and fluctuated greatly during the seventeenth century, finally becoming a star of the fifth magnitude, and so continuing to the present time. It has recently been repeatedly observed at the Harvard College Observatory with the meridian photometer, and does not appear to be undergoing any variation at present.

Another of the star's shown by the photograph to have bright lines is D.M. + 37° 3821, where the lines are unmistakably evident, and can readily be seen by direct observation with the prism. The star has been overlooked, however, in several previous examinations of the region, which illustrates the value of photography in the detection of objects of this kind.

The other two stars first shown by the photograph to have spectra containing bright lines are relatively inconspicuous. The following list contains the designations according to the *Durchmusterung*, of all eight stars, the first four being those previously known:—35° 4001, 35° 4013, 36° 3956, 36° 3987, 37° 3821, 38° 4010, 37° 3871, 35° 3952 or 3953. Of these 37° 3871 is P Cygni, and 37° 3821, as above stated, is the star in the spectrum of which the bright lines are most distinct.

EDWARD C. PICKERING

PEAT FLOODS IN THE FALKLANDS

THE accompanying narratives of a singular visitation which has befallen the town of Stanley in the Falklands may be of some interest to the readers of NATURE. Though the causes are so different, the effects of the bursting of a peat-bog in some respects curiously simulate those of a lava-flow. The papers have at different times been sent to Kew from the Colonial Office. It is partly in the hope that their publication may lead to some practical suggestion for dealing with the trouble that I ask for their insertion in your columns.

W. T. THISELTON DYER

THE ACTING-GOVERNOR BAILEY TO GOVERNOR
CALLAGHAN, C.M.G.

Stanley, Falkland Islands, January 1, 1879

SIR,—I regret to have to report to you the circumstances attending an accident which happened early on the morning of November 30 last.

Just after midnight on Friday, November 29, one of the inhabitants was awakened by the continued barking of his dog, and thinking that a cow had strayed into his garden, he went outside, when to his alarm he found that his house was surrounded by a black moving mass of peat several feet in height, and travelling down the hill at about four to five miles an hour. It was not until daylight that the extent of the disaster was manifested.

The sufferers by the calamity were quite shut off from communication with the rest of the settlement, until they

had cut a way for themselves through the heap of liquid peat, which everywhere surrounded their dwellings. Fortunately no lives were lost.

Immediately, when the report reached me, I proceeded to the scene of the disaster, and found the town in a worse state than it had been represented, all communication between the east and west end of Stanley being entirely cut off, except by boats. At this time there was no perceptible movement in the mass of peat which covered the ground in confused heaps, except in Philomel Street and the drain on the east side—where I perceived the liquid peat moving down at a very slow rate. To get rid of this as quickly as possible, I found it advisable to turn all the water that could be damned up, and sluice the peat whilst in a liquid state, and by this means I eventually cleared Philomel Street. On following up the course which the slip had taken, the hill presented a curious appearance. From the peat bank, down to the brow of the hill, a distance of about 250 yards, the surface-peat lay in confused heaps direct from the opening of the bog. The moving power (whether water or liquid peat it is impossible to say) travelled over the ground faster than the heavier bodies, which were left standing 3 to 4 feet above the level of the ground.

Proceeding to the top of the bog, I found a depression extending over 9 to 10 acres of ground, the edges cracking and filling up with water, and threatening another accident. I at once saw the necessity of calling upon the inhabitants to assist me in cutting a trench at the back of the hill, so as to draw off this accumulation of water, which seemed likely to float the loose peat left in the depression down into the settlement. I am glad to say that this call was heartily responded to by every man in the settlement, the gentlemen finding substitutes to take their places.

All worked for eight days in the cold and the rain, but nevertheless they were unsuccessful in carrying the trench through the bank into the bottom of the slip, owing to the soft peat welling up from the bottom and filling the trench again. Seeing that the exertions were of little avail in the present state of the bog, I did not press the settlers to continue the work that was so disheartening in its results; and as I now felt satisfied, from the great quantity of water that had been drained off, and the cutting being at a level, that this would prevent any further accumulation of water taking place in the slip, as there was no immediate danger of another accident taking place, the work was stopped, and I published the inclosed notice.

With your Excellency's permission I will, in the course of a few weeks, prepare sections of the bog and the settlement, showing a plan of drainage which will, I hope, prevent a similar accident happening again.—I have, &c.,

(Signed) ARTHUR BAILEY

His Excellency Governor Callaghan, C.M.G.

LIEUT.-GOVERNOR BARKLY TO EARL GRANVILLE

*Government House, Stanley, Falkland Islands,
June 3, 1886*

MY LORD,—I regret to have to report that a slip of the peat-bog at the back of the town of Stanley, similar to that which occurred in November 1878, but about 200 yards to the westward of the scene of that accident, took place last night. A stream of half-liquid peat, over 100 yards in width and 4 or 5 feet deep, flowed suddenly through the town into the harbour, blocking up the streets, wrecking one or two houses in its path, and surrounding others so as completely to imprison the inhabitants. Fortunately, as the night was wet and stormy, almost every one was within doors, and the few who were in the wrecked houses escaped in time. One child was, unfortunately, smothered in the peat, whose body has been recovered, but no other casualties are known to have occurred. An old man is, however, reported to be

