highest parts of Norway this summer, he noticed that footprints assumed a greenish hue, which was not the case with new snow. It has generally been assumed that the snow Algæ, so well known in higher latitudes, did not as a rule flourish on snow in Norway.

THE Society for Promoting Christian Knowledge will publish shortly a "Star Atlas," containing maps of all stars from 1 to 6·5 mag. between the North Pole and 34° south declination, and of all nebulæ and star clusters in the same region which are visible in telescopes of moderate powers. The explanatory text, by Dr. Hermann J. Klein, has been translated and adapted for English readers by Mr. Edmund McClure.

MESSRS. CROSBY LOCKWOOD AND SON will publish during the ensuing season the following works bearing on science:—"The Metallurgy of Gold," a practical treatise on the metallurgical treatment of gold-bearing ores, including the processes of concentration and chlorination, and the assaying and refining of gold, by M. Eissler, formerly Assistant Assayer of the United States Mint, San Francisco; with 90 illustrations. "Practical Surveying," a text-book for students preparing for examinations or the colonies, by George W. Usill, A.M.I.C.E.; with upwards of 330 illustrations. "Tables, Memoranda, and Calculated Results for Farmers, Agricultural Students, Graziers, Surveyors, Land Agents, Auctioneers, &c.," with a new system of farm book-keeping, selected and arranged by Sidney Francis; waistcoat pocket size. Also the following new volumes in Lockwood's series of "Handy-books for Handicrafts":—"The Model Engineer's Handy-book," a practical manual, embracing information on the tools, materials, appliances, and processes employed in constructing model steam-engines, by P. N. Hasluck; with about one hundred illustrations and working drawings (in the press). "The Clock Jobber's Handy-book," a practical manual, embracing information on the tools, materials, appliances, and processes employed in cleaning, adjusting, and repairing clocks, by P. N. Hasluck; with about one hundred illustrations. "The Cabinet Worker's Handy-book," a practical manual embracing information on the tools, materials, appliances, and processes employed in cabinet work, by P. N. Hasluck; with about one hundred illustrations.

IN an interesting paper presenting a concise history of the acclimatization of the Salmonidæ in Tasmania, Mr. P. S. Seager claims that success has been secured in the thorough and unquestioned establishment of salmon trout and brown trout, both of which species are now abundant in Tasmania. The establishment of the true salmon is still to some extent a matter of uncertainty. "It must, however, be borne in mind," says Mr. Seager, "that more than one specimen submitted for scientific examination to Dr. Günther and others have been pronounced *S. salar*, and that Sir Thomas Brady has publicly stated his belief that specimens shown to him are of the same species. In speaking of them commercially, Sir Thomas states that such specimens in a salmon-producing country would be accepted as salmon without a doubt." This being so, Mr. Seager is of opinion that the establishment of *S. salar* in Tasmania may almost be regarded as an accomplished fact.

ADVICES from the Philippine Islands, *viâ* Hong Kong and Yokohama, received at Queenstown from New York on Saturday morning last, state that over 300 lives were lost in those islands by the eruption of an old volcano, named Mayon, at the latter end of July. Several hundreds of houses were also destroyed by the lava and ashes, and the natives were in a state of panic. Volcanoes in the islands of the Bissayar group were also in a violent state of eruption, and it is thought there has been a terrible loss of life.

THE Artisans' Classes at the Royal Victoria Hall will reopen on Monday, October 1. Among the subjects taught will be arithmetic, physiology, physiography, shorthand, chemistry astronomy, mechanics, machine drawing, and electricity. Many of the classes are in connection with the Science and Art Department.

THE additions to the Zoological Society's Gardens during the past week include two Vulpine Phalangers (*Phalangista vulpina* ♀ ♀) from Australia, presented by Mr. J. M. Kirby; a Suricate (*Suricata tetradactyla*) from South Africa, presented by Lieut. Lionel de Latour Wells, R.N.; a Common Teal (*Querquedula crecca* ♀), British, presented by Mr. Bergman; an European Pond Tortoise (*Emys europæa*), European, presented by Master William Reed; a Robben Island Snake (*Coronella phocarum*) from South Africa, presented by the Rev. G. H. R. Fisk, C.M.Z.S.; an Ourang-outang (*Simia satyrus* ♀) from Borneo, a Ruffed Lemur (*Lemur varius*) from Madagascar, a Larger Hill Mynah (*Gracula intermedia*) from India, two —— Tree Ducks (*Dendrocygna* ——) from the Celebes? deposited; a —— Capuchin (*Cebus* —— ♀) from Brazil, two Brush-tailed Kangaroos (*Petrogale penicillata* ♂ ♀) from Australia, purchased; a Chinese Goose (*Anser cygnoides* ♀) from China, received in exchange.

OUR ASTRONOMICAL COLUMN.

COMET 1888 *e* (BARNARD).—The comet discovered by Barnard on September 2 is increasing in brightness, but is still a faint object. M. Bigourdan describes it on September 5 as showing a round nebulosity from 1′ to 1′·5 in diameter, with a fairly stellar nucleus, of magnitude 11½ or 12. The nebulosity was not quite symmetrical with regard to the nucleus, but was most developed in the direction of position-angle 20°. The following elements are by Dr. A. Berberich from observations made at Strassburg, September 4 and 8, and Dresden, September 13 (*Astr. Nach.*, No. 2858):—

T = 1889 January 29·0959, Berlin M.T.

ω = 341° 43′ 27″·9
Ω = 358 6 20·8 Mean Eq. 1888·0.
ι = 166 20 28·2
log q = 0·252291

Error of middle place (O − C). $\Delta\lambda = -2''$; $\Delta\beta = 0''$.

Ephemeris for Berlin Midnight.

1888.	R.A. h. m. s.	Decl. ° ′	Log r.	Log Δ.	Brightness.
Sept. 30 ...	6 40 1 ...	8 37·7 N. ...	0·3694 ...	0·3326 ...	2·27
Oct. 2 ...	6 37 54 ...	8 23·4			
4 ...	6 35 33 ...	8 8·4 ...	0·3637 ...	0·3081 ...	2·59
6 ...	6 32 56 ...	7 52·6			
8 ...	6 30 2 ...	7 35·9 ...	0·3580 ...	0·2822 ...	3·00
10 ...	6 26 48 ..	7 18·2			
12 ...	6 23 14 ...	6 59·5 N. .	0·3523 ...	0·2550 ...	3·51

The brightness on September 2 has been taken as unity.

Prof. Krueger has deduced very similar elements to the above, using an observation made at Hamburg on September 13 instead of that made at Dresden.

COMETS BROOKS AND FAYE.—The following ephemerides for these two comets are in continuation of those given in NATURE for September 20 (p. 503), and are by Dr. H. Kreutz:—

1888.	Comet 1888 *c* (Brooks). R.A. h. m. s.	Decl. ° ′	Comet 1888 *d* (Faye). R.A. h. m. s.	Decl. ° ′
Sept. 30 ...	15 30 41 ...	14 47·4 N.	7 6 24 ...	14 3 N.
Oct. 2 ...	15 37 15 ...	13 28·2	7 10 19 ...	13 41
4 ...	15 43 35 ...	12 11·6	7 14 8 ...	13 19
6 ...	15 49 42 ...	10 57·6	7 17 51 ...	12 56
8 ..	15 55 35 ...	9 46·3	7 21 29 ...	12 33
10 ...	16 1 16 ...	8 37·7	7 25 0 ...	12 10
12 ...	16 6 46 ...	7 31·7	7 28 25 ...	11 47
14 ...	16 12 6 ...	6 28·2	7 31 43 ...	11 23
16 ...	16 17 18 ...	5 27·1 N.	7 34 55 ...	10 59 N.

Comet Brooks is slowly decreasing in brightness, but Comet Faye is brightening.