

by Mr. Bochart, a working man—will be read ; and it has been arranged that the reading of these papers shall be followed by a discussion. It is hoped that employers and employed will both be largely represented at the meeting. The Hon. Secretary will be glad to send tickets for the platform or for reserved seats to anyone who may apply for them.

IN the Report of the Newcastle Public Libraries Committee for 1886-87, it is stated that, at the annual stock-taking in June-July 1886, only three volumes were found to be unaccounted for. Only sixteen volumes have been lost since the opening of the Library in 1880. During the same period the issue of volumes has reached a total of 1,538,445.

A NEW edition of the catalogue of books in the juvenile lending department connected with Newcastle Public Library has just been issued. A glance at the contents, as the compiler truly says, will show that in this juvenile department “a wonderful wealth of entertainment is placed at the command of the young people of Newcastle.” No fewer than two thousand carefully selected volumes are at their disposal. During the seven years the Library has been open, the Committee has more than doubled the stock of books in this collection, and 215,092 volumes have been lent to children.

A VISITOR to the beaver colony at Amlid, some distance from Christiansand, in Norway, to which we referred some months ago, states that the colony has flourished considerably during the summer, and is now probably the largest in Norway. Sometimes as many as a dozen animals may be seen at a time in the water. The huts are built close to the shore, and have two stories, one above and one below the surface of the water. The walls are made of timber, laid as in a human dwelling, whilst the roof is covered with twigs and mud. All the aspen-trees in the vicinity have now been felled, and the animals have begun to attack the birches. Trees upwards of 18 inches in diameter at the root have been cut down. The animals appear to have most use for the branches, many stems stripped of the same lying about in the woods. The material required is dragged to the waterside along regular “log runs,” such as wood-cutters leave in forests, and in some places roots crossing the same have been gnawed off, so as to make the run smooth. Shortly after an increase in the colony the new-comers begin to build a new house. Not one of the animals has as yet been killed, and visitors come from all parts for the purpose of watching their peculiar mode of living. It has been found that sentinels are posted, giving the alarm to the rest of the colony in case of danger. When such an alarm is given, all the animals leave their dwellings for the water.

READERS of Icelandic Sagas will remember that in the celebrated Njal’s Saga there is a record of an attack on Njal’s dwelling, Bergthorsval (named after his wife, Bergthora), and of its being burned, with the whole of Njal’s kin. In order to demonstrate the historical accuracy of the Saga, a member of the Iceland Archæological Society some two years ago proposed to excavate the spot where Njal’s dwelling was said to have stood. This was done last year, and resulted in the discovery, at a depth of some 6 feet, of a layer of ashes, remains of charred beams, &c. But this was not all. Below the ashes three lumps of some substance of a spongy nature, dirty-white in colour, were found ; and Dr. Storch, Director of the Royal Agricultural Laboratory in Copenhagen, by whom these lumps have just been analyzed, pronounces them to be ancient curdled milk and cheese. Such milk, called Skyr, was much liked in Iceland in remote times, and was often solidified to a kind of cheese by the fluid matter being pressed out. Strangely enough, the Saga mentions the fact of women bringing Skyr to extinguish the fire. Dr. Storch, by slowly treating fresh Skyr to a tem-

perature of a little more than 100° C., has thereby obtained a substance in every respect similar to that found in the supposed ruins of Njal’s dwelling.

THE additions to the Zoological Society’s Gardens during the past week include a Striped Hyæna (*Hyæna striata*) from North Africa, presented by Mr. Ernest Heydon Marquis ; a Crested Porcupine (*Hystrix cristata*) from Suakim, presented by His Grace the Duke of Hamilton, K. T., F. Z. S. ; two Common Squirrels (*Sciurus vulgaris*), British, presented by Mrs. Henry Alex. Hankey ; a Horned Tragopan (*Cerionis satyra* ♂) from the South-eastern Himalayas, presented by Mr. R. J. Lloyd Price ; a Vinaceous Dove (*Turtur vinaceus*) from West Africa, presented by Mr. R. H. Mitford ; three South African Scorpions (*Scorpio* —) from South Africa, presented by Mr. W. K. Sibley ; a Zebu (*Bos indicus*) from Africa, two Sandwich Island Geese (*Bernicla sanduicensis*) from the Sandwich Islands, deposited.

OUR ASTRONOMICAL COLUMN.

THE NEW ALGOL VARIABLES, Y CYGNI AND R CANIS MAJORIS.—Mr. Chandler has just published in *Gould’s Astronomical Journal*, No. 163, his elements for these two interesting variables. In the case of Y Cygni, it will be recollected (see NATURE, vol. xxxv. pp. 307, 329) that before its period had been fully determined by observation, Mr. Chandler concluded, from the analogy of all the then known stars of the type, that it would prove to be about thirty-six hours. This is now found to be correct, the actual period being 1d. 11h. 56m. 48s. The ground upon which the inference was based was the circumstance that with the other stars of the type the shorter the period of the star the higher is the ratio which the time of oscillation bears to the entire period. The first exception to this rule is R Canis Majoris, the variable star discovered by Mr. Sawyer last March (see NATURE, vol. xxxvi. p. 376), the duration of the oscillation for this star being 5h. instead of 6h., as it should be on the same principle.

The following are the elements of the two stars :—

	Y Cygni.	R Canis Majoris.
Epoch	{ 1886, Dec. 9,	{ 1887, Mar. 26,
	{ 11h. 14m. 30s.	{ 14h. 58m. 30s.
Period	1d. 11h. 56m. 48s.	1d. 3h. 15m. 55s.
Brightness at maximum	7' 1m. ...	5' 9m.
Brightness at minimum	7' 9m. ...	6' 7m.
Duration of decrease ...	4h. ...	2' 5h.
Duration of increase ...	4h. ...	2' 5h.
Stationary maximum brilliancy	28h. ...	22h.

MINOR PLANET No. 271.—This object has received the name of Penthesilea.

ASTRONOMICAL PHENOMENA FOR THE WEEK 1887 DECEMBER 11-17.

(FOR the reckoning of time the civil day, commencing at Greenwich mean midnight, counting the hours on to 24, is here employed.)

At Greenwich on December 11

Sun rises, 7h. 58m. ; souths, 11h. 53m. 22' 9s. ; sets, 15h. 49m. : right asc. on meridian, 17h. 12' 9m. ; decl. 23° 1' S. Sidereal Time at Sunset, 21h. 9m. Moon (New on December 14, 19h.) rises, 3h. 11m. ; souths, 8h. 47m. ; sets, 14h. 14m. : right asc. on meridian, 14h. 6' 5m. ; decl. 7° 27' S.

Planet.	Rises.	Souths.	Sets.	Right asc. and declination on meridian.		
	h. m.	h. m.	h. m.	h. m.	h. m.	
Mercury...	6 7 ...	10 32 ...	14 57 ...	15 51' 2	...	18 26' S.
Venus....	3 33 ...	8 46 ...	13 59 ...	14 4' 9	...	9 56' S.
Mars.....	0 47 ...	6 54 ...	13 1 ...	12 12' 5	...	0 44' N.
Jupiter...	5 37 ...	10 6 ...	14 35 ...	15 24' 9	...	17 47' S.
Saturn....	19 28* ...	3 16 ...	11 4 ...	8 34' 1	...	19 10' N.
Uranus...	2 9 ...	7 43 ...	13 17 ...	13 1' 6	...	5 52' S.
Neptune..	14 44 ...	22 24 ...	6 4* ...	3 45' 0	...	18 3' N.

* Indicates that the rising is that of the preceding evening and the setting that of the following morning.