

It has been long known that during the night cattle are cooler outside than in the barn; but in day-time it is the common practice to put cattle into the barn during hot days to be "away from the heat." The following observations made by a dip thermometer with its bulb immersed in the fur of the skin speak very plainly:—

Temperature of the air..... 84° Fai.

Cattle kept in barn, with barn doors open and window sash taken out.

Temperature of skin:

Rose of Lucyfield.....100° Fah.

Heriot..... 99.5° "

Charity.....100° "

Cattle kept in open field.

Temperature of skin:

Cawood's Rose..... 96° "

Polly Vaughan..... 95.5° "

The observations were made at evening milking. In man the temperature of the interior of the body is 2.7 to 3.6 degrees higher in tropical than in temperate climes (Davy). Rudolphi and Tiedemann give the interior body temperature of the ox as 104 to 99°. When we shut up an animal in a barn or stable the high interior temperature extends to the skin, which remains moist; in the open air evaporation from the surface lowers the temperature of the skin and the fur feels dry. In man the temperature of the accessible parts of the body, as the mouth, axilla, &c., is usually between 97.7° and 98.6°. The human blood is said to have a temperature in health varying from 100.6° to 101.75, rising in disease sometimes as high as 109°. Temperature of sheep's body, 104° to 100.4°; of the horse, 98.24° to 97°; dog's, 101.3° to 99.3°. The skin of these animals should never be allowed to rise so high.

Lucyfield Farm, 7th Aug., 1876.

We have received the following official announcement from the authorities of the Philadelphia Exhibition. There appears to be a want of information as to time, which intending competitors may, we presume, have supplied by writing to head quarters:—

FLY CASTING TOURNAMENT!

SPECIAL PRIZES.

JOHN KRIDER, 2nd and Walnut Streets, Philadelphia, offers a KRIDER ROD CENTRE ENAMEL SPLIT BAMBOO, value \$60.00.

A. B. SHIPLEY & SON, 403 Commerce Street, Philadelphia, offer a GREENHEART ROD, value \$40.00.

CONROY, BIASSETT & MALLERSON, 65 Fulton Street, New York, offer a WYMAN'S REEL, value \$46.00.

EATON, HOLBERTSON & Co, 102 Nassau Street, New York, offer a HOLBERTSON FLY BOOK, value \$—.

At the Croydon show on 5th July, prizes were given for mules suitable for farm work.

THE following circular relating to the Philadelphia Exhibition reached us too late for last number, so that we have not had an opportunity of printing it until the date for entries—15 July—is past. We, however, explained the position of matters last month, and the reason why intending exhibitors had withdrawn their entries:—

With regard to Ontario, the number of live animals to be sent here has already been submitted to the Commission, by the Secretary of the Advisory Board of that Province, acting on a memorandum furnished to him for that purpose.

With respect to the Maritime Provinces, the Commission has been informed by the Secretaries of the Advisory Boards that no animals will be sent from there. Nevertheless, should it now be desired to forward any such animals, they will be received on the following conditions and on those to be stated in the last paragraph, viz:—That they must be recommended and forwarded by the Advisory Board of the Province from whence they come, and that they must be collected without charge to the Commission at some point to be chosen by the Advisory Boards on the Intercolonial Railway, from whence they will be conveyed and where they will be returned at the cost of the Commission. Inasmuch as the cost of conveyance is very much increased if less than full car loads are sent, the Commission can accept only full loads from each Province, unless it should be found impossible to collect enough animals for that purpose. In that case, the Commission will receive only a single car partially loaded, or should one or more full loads have been sent, a single car partially loaded to make up the whole quantity. Entries must be forwarded, through the Advisory Boards, to the Secretary of the Commission at Philadelphia, on or before the 15th July, after which no entry can possibly be accepted for any reason whatever.

The dates of exhibition will be for horses, mules and asses, from the 1st to the 15th September; for horned cattle, from the 20th September to October 5th, and for sheep, swine, &c., from October 10th to October 25th.

Fruit intended for the exhibition at Philadelphia must be sent at a single shipment, from some place to be designated by the Advisory Boards of the several Provinces. It must be conveyed to that point free of charge to the Canadian Commission, and be shipped only by the Advisory Board of the Province. No time is fixed for entries; but notice must be forwarded to the Secretary of the Canadian Commission at least three clear weeks before the date at which the car or cars will be required,

specifying the particulars of the time and place determined on, and the quantity of fruit to be shipped. The Canadian Commission will not be responsible for any damage arising to the fruit, from any circumstances whatever; nor will they undertake to return it, but will bear all cost of transport and of exhibition at Philadelphia in the manner provided by the Centennial Commission, and not otherwise.

THE British Association for the Advancement of Science meets this year at Glasgow, commencing on 6th September. This is the 46th Annual Meeting. Prof. Andrews is to preside, in place of Sir Robert Christison, Bart., of Edinburgh, who has resigned the Presidency on account of ill health, and who, no longer a youth, has been hale and hearty for more than eighty years, and, up to the present time, able to join in a duet or drill his Company as actively as the youngest student in the College. The only "motion" announced in the circular to members is a very "practical" one by Professor Everett (formerly of King's College, Windsor), "That each section be recommended to break up for half an hour each day, at such time as shall be most convenient in each case, with the view of enabling the members to lunch." The Edinburgh Professors and Citizens have given a public dinner to Professor Sir Wyville Thomson and other officers of the "Challenger," on occasion of their safe return. Professor Huxley proposed the toast of the evening. He intends to visit America this month.

A CORRESPONDENT in King's County writes in a private letter:—There is a general outcry about fruit, but I think many people will be pleasantly disappointed in their crop. The apples are just now gaining the size to be seen, and, I think, are showing themselves more plenty than was expected. I would not venture any definite information at present.

WHEN in Cornwallis lately we were told that some parts (not all) of the Wellington Dyke will average three tons of hay to the acre this year. One farmer who generally cuts from 60 to 65 loads or tons from 25 acres, this year had 64 loads of hay, and about 1½ acres in barley.

THE dynamometer test, applied at Hull, showed that three horses pulling a double plough were rather less heavily weighted per horse than two horses drawing a single-furrow plough. The sole or slade is a necessary evil in single ploughs but may be got rid of in multiple ploughs.