chemie, Wiedemann's *Annalen*, and the *Zeitschrift für physikalische Chemie*, constitute his literary activities.

One of Prof. Haber's most important researches was that upon the ammonia gas equilibrium at high temperatures. This work resulted in the development of a commercial method for the manufacture of pure ammonia directly from the elements by the use of osmium or uranium as a catalyser. Another important series of researches was that upon the properties of flames, including the gas equilibria involved, the ionisation and conductivity of the gases, and the action of the ions as catalysers. He has spent much time during the last few years upon the study of the escape of electrons from the reacting surfaces of metals, and the effects of electrons upon gas equilibria and upon the velocity of chemical reactions. His other recent researches have been mostly upon the following subjects:—the electromotive force of the oxyhydrogen cell at high temperatures; the oxidation of nitrogen in the high-potential arc; a gas refractometer for the optical analysis of gases according to Rayleigh's principle; electrical forces at phase boundaries; the corrosion of iron by stray currents from street railways; the reduction of hydroxylamine; the use of solid materials, such as glass and porcelain, as electrolytes; the equilibrium between magnesium chloride and oxygen; electrode potentials and electrolytic reduction; the laboratory preparation of aluminium; the preparation of hydrogen peroxide by electrolysis; experiments on the decomposition and combustion of the hydrocarbons; and autoxidation.

The writer wishes to thank Dr. Fritz Hiller, of Berlin, for the greater part of the information contained in this letter. The statements in regard to the purposes and government of the institute are official.

WILLIAM D. HARKINS.

University of Montana, September 30.

The Weather of 1911.

THAT the year which is now drawing towards its close has been, as regards weather, a true *annus mirabilis* is a commonplace of conversation, and all the more so by reason of the contrast between this and last year. Not only has the summer been remarkable for its length, its heat, its brilliance, but the autumn, even since the weather has broken, has been characterised, unless I am mistaken, by an unusual tendency to relapse into bright sunshine: the storms have cleared up with great rapidity; the sunshine has been peculiarly clear, and mist and fog remarkably rare.

Now for these exceptional phenomena there must be some exceptional cause, or combination of causes. Can any of our meteorologists say what it is? I do not ask for a statement of causes such as the prevalence of anticyclones in a particular direction or the continuance of given winds, for such facts are only part of the phenomena to be explained; but I want to know whether any real cause can be assigned for the general character of the weather.

EDW. FRY.

Failand, November 8.

Dew-ponds in 1911.

THE pond near Chanctonbury, referred to by Mr. J. P. Clatworthy in *NATURE* of November 2 (p. 8), has generally been regarded as an ancient one; and I may perhaps direct attention to a statement in vol. lvii. of the "*Sussex Arch. Collections*" to the effect that it was made by the Rev. J. Goring, the father of the present owner. If this be correct, and the word "made" should not read as "re-made," there is, apparently, no ground for attributing the pond and its fortifications to Neolithic or any other ancient people.

A visit to St. Martinsell Hill, Wilts, on September 18 showed how disastrous had been the effects of the long drought. The pond near to the shepherd's cottage was dry except for a small circle of mud at the bottom. When normally full it could not have been more than 2 feet deep; and the whole area was strewn with loose angular flints. The occupier of the cottage stated that the pond had never previously dried up during the seventeen years she had been there. The sheep on the downs had nearly all gone, there being no "feed" for them. In short

droughts the dew seems to be sufficient to maintain the "feed"; but this year the absence of rain for so long brought about a remarkable absence of dew, and the dependence of dew upon earlier fallen rain seems to be an established fact.

Another pond is to be seen about a quarter of a mile to the north of the cottage on level ground. It has a large hole in the centre some 5 feet deep. This pond was quite dry. A quantity of puddle had been removed from the depression.

Another pond-depression occurs south-west from the cottage and barn, at the beginning of the spit of down which here juts out over the low-lying land of the Vale of Pewsey. It is grass-grown, and has several Scots pines growing in it. There is no good reason to think it was a "quarry," or even a "tally-house," as has been alleged. It was dry.

Further west along this narrow spit of land, and beyond the great ditch and vallum known as Giants' Graves, is an empty pond-depression about 20 feet across, constructed in a most convenient position if only it had water. It has apparently been grass-grown for many years—another instance of the extraordinary neglect of modern-day farmers.

All these ponds were circular. On descending on the east of St. Martin's Hill towards Wootton Rivers, past a series of mounds like swellings on the side of the hills, called by some authors "pit-dwellings," I noticed a square pond at the edge of a field. This was also dry. But a little nearer Wootton Rivers, at the side of the road, was a pond full of water. This was on the low ground beneath the hills; and the secret of its success lay in the fact that it was almost surrounded by tall trees, some of which completely overhung the pond. Thus evaporation was reduced to a minimum in the heat of the summer sun, whilst it may have been replenished by the condensation on the leaves of the trees.

It was observed that a concrete pond was being built on a slight eminence in a field near at hand, and it was stated in the village that a boring was being made for water.

There is a moral. In the first place, farmers do not make their ponds deep enough. In the next place, they neglect them until they dry up. Finally, when they do repair them, they remove the puddle at the bottom in the process of cleaning, and then wonder why the ponds fail to hold water.

EDWARD A. MARTIN.

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The Research Defence Society and Anti-Vivisection Shops.

WE desire to make a special appeal for the purpose of undoing the harm which is done by anti-vivisection shops and processions. The exhibits in these shops are of a most misleading nature: and the truth as to anaesthetics is carefully concealed. No operation, more than the lancing of a vein just under the skin, is allowed to be done on any animal in this country, unless the animal is under an anaesthetic throughout the whole of the operation.

It will be remembered that one of these shops, on the death of H.M. King Edward VII., distributed a leaflet suggesting that his Majesty's death was due to medical treatment.

We have, of course, received many complaints against these shops. We find that the police have no power to close them: and we can only place men outside them, to give our leaflets to passers-by.

But this constant giving of literature is a heavy expense to our Society. We therefore appeal for special contributions toward this purpose. We make this appeal with confidence, for we are sure that the public recognises the grave harm which is done by these shops, especially to children. All contributions should be sent to the Hon. Treasurer, Research Defence Society, 21 Ladbroke Square, London, W.

We may, perhaps, take this opportunity of mentioning that a letter has just been received from Sir Apolo Kagwa, K.C.M.G., the Prime Minister of Uganda. It is dated from Mengo, Uganda, September 26. "I really think," he says, "that in a few years' time sleeping sickness will be extinct in Uganda, and people will become immune from