

assertion that the offspring of wild males and tame females tend to manifest the wild temper of their fathers.

It seems remarkable that nobody—so far as I am aware—has hitherto directed attention to the passage which I have quoted above. It occurs incidentally in a letter which described such novelties as the spermatozoa and red blood-corpuscles of the frog, and the ciliate Protozoa parasitic in the frog's intestine. But it is perhaps even more remarkable that neither Leeuwenhoek at the time, nor anybody else for some two hundred years subsequently, perceived the importance of such observations as the rabbit-fanciers of Holland had made. Leeuwenhoek was, of course, an "animalculist": and he cites the case of the rabbits to confute "*non nemo Doctorum*"—evidently an "ovist"—and to "bring a sufficient proof of the fruits coming from the *Male seed*, and the *females* only contributing to the nourishment and growth of it."

Leeuwenhoek's remarks evidently do not constitute the earliest known reference to rabbit breeding. For Darwin ("*Animals and Plants*," chapter iv.) gives earlier references to Gervaise Markham (1631), and Aldrovandi (1637), which show that several kinds of rabbit were already kept and bred at the beginning of the seventeenth century. Nevertheless, the passage which I have quoted above is, perhaps, the earliest exact account—based upon experiment—of the inheritance of any character in any animal or plant; and as such I think it is worthy of record.

I am indebted to my friend, Prof. R. C. Punnett, F.R.S., for information on certain matters mentioned in this letter; and I would refer the reader interested in the subject to his important paper, "*Inheritance of Coat-Colour in Rabbits*," published in the *Journal of Genetics*, vol. ii., No. 3, 1913, for further facts.

CLIFFORD DOBELL.

Imperial College of Science, South Kensington,
London, S.W., January 15.

Books for Belgian Students.

WE are gradually building up a little Belgian University here for students who, for one reason or another, cannot go to the front, and for professors who are past the age of serving. Altogether we have between one hundred and two hundred students, and some fifteen to twenty professors.

Last term we were able to establish effective teaching in four faculties, and this term we have increased the number to six. In the faculty of medicine we are in need of copies of some standard text-book on human anatomy—preferably Gray's.

This University has already found several thousand pounds to support our guests, and will have to find several thousands more to keep things going until next June. Consequently we have to husband our resources very carefully, and cannot afford to purchase such expensive text-books as Gray's "*Human Anatomy*."

It may be that your readers have copies of this work lying unused on their shelves. If this is so, I should be grateful if they would send them to me for the use of these students. At present ten or a dozen copies would suffice.

A. E. SHIPLEY.

Christ's College Lodge, Cambridge, January 25.

An Unexplained Laboratory Explosion.

I SHALL be glad if any of your readers can give me an explanation of the following occurrence.

Owing to the fact that we are somewhat out of the way here, and, in consequence, fresh bleaching

powder is difficult to obtain, I have found it necessary, when demonstrating the formation of chloroform, to find some method other than the usual treatment of alcohol with bleaching powder.

With this object, a few days ago I prepared a mixture of 60 grams of slaked lime with 400 c.c. of cold water and 40 c.c. of alcohol. The mixture was placed in a 2000 c.c. flask, through the cork of which a long tube conducted chlorine to the bottom of the liquid. Through the cork also went another short tube connected to a condenser.

Chlorine had been passing into the liquid fairly quickly for about twenty minutes, and the contents of the flask had warmed up to perhaps 50° C., when a slight smell of chlorine became evident at the end of the condenser, together with a small amount of white fumes; but inside the big flask, except for the slight rise of temperature, there was no evidence of chemical action. Suddenly, with no warning whatever, the whole apparatus blew up; I might almost say detonated, as there was not a piece bigger than a sixpence left, either of the flask, the condenser, or the small flask put to catch the distillate when it should arrive.

Owing perhaps to the violence of the explosion, I got off with a few scratches on my face. My clothes were cut by pieces of glass, however, and the fragments were scattered for at least six yards all round. There was no odour, either of chloroform or anything else, apparent; only that of the chlorine from the generating flask, which, curiously enough, had escaped injury. The whole delivery tube was intact, and also the exit tube from the big flask, the neck of which, with the cork, was left sticking in the clamp, so that I was able to be sure that the trouble was not due to a blocking up of the exit.

W. F. A. ERMEN.

O. Granbery, Juiz de Fôra, Minas,
December 11, 1914.

Demonstration of Strain-hardening of Steel.

THE accompanying photograph (Fig. 1) represents the side of a steel bar. The bar was first marked by a punch in the way shown, and the punch marks were afterwards completely filed out. The side was then polished and the bar pulled in a testing machine beyond the elastic limit of the material. The polished surface was gradually destroyed everywhere except just under the punch marks, where the overstrained

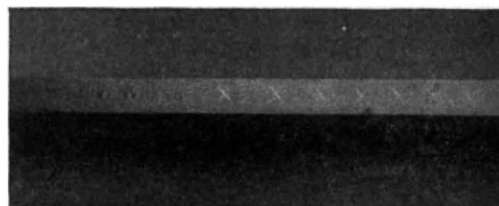


FIG. 1.

material retained its polish and the marks again became evident. In the strained bar the marks remain distinctly raised above the rest of the surface. A similar experiment was made with a shorter bar that was afterwards subjected to compression along its length. Again the punch marks became clearly visible, but this time they remained as polished depressions instead of raised surfaces.

R. W. CHAPMAN.

The University of Adelaide, South Australia,
November 30, 1914.