T. E. SAVAGE: 'The Toledo Lobe of Iowan Drift.'

T. J. and M. F. L. FITZPATRICK: 'The Scrophulariaceæ of Iowa.'

L. H. FORD: 'Smallpox in the Public Schools.'

'Notes from the Chemical Laboratory of Cornell College.'

W. E. SANDERS: 'A Study in Psychopathic Heredity.'

The membership of the academy was increased by the addition of the following fellows: T. C. Frye, D. W. Morehouse, H. C. Price and B. C. Lanphear; the new associate members are Lucy M. Cavanagh, Harriet Clearman, Fred Seaver, A. M. Allen and R. E. Buchanan.

The newly elected officers are:

President—B. Fink.
First Vice-President—S. W. Beyer.
Second Vice-President—Maurice Ricker.
Secretary—A. G. Leonard.
Treasurer—H. W. Norris.

A. G. LEONARD,
Secretary.

THE KELVIN PHYSICAL CLUB OF THE UNIVERSITY OF PENNSYLVANIA.

THE club met on Saturday, February 28, in the Randal Morgan Physical Laboratory and listened to a paper by Mr. Homer M. Derr, on 'Chromatic Interference with Thin Section of Doubly Refracting Crystals in Polarized Light.' The paper contained in brief the theory of the colors of thin rock sections as seen through a polarizing microscope and discussed the practicability of using the same as a means of analysis when chemical action was insufficient to detect certain minerals.

Mr. Derr is constructing a table of the colors up to the fourth order of different minerals with varying thicknesses for qualitative analysis in petrology.

At a meeting of the club on March 7, a paper was presented by Mr. J. Frank Meyer, which reviewed the history of electric convection from the beginning to its present culmination in the dispute between Cremieu and Prender. There was a full attendance at the meeting.

JOS. H. HART,
Secretary.

DISCUSSION AND CORRESPONDENCE.

WILL-MAKING.

TO THE EDITOR OF SCIENCE: Professor Chamberlain's suggestion in SCIENCE, March 6, page 391, that wills should be probated during the lifetime of the testator, has been frequently made to legislatures and just as frequently rejected. It was one of the matters considered and rejected by the judges' committee in the recent revision of Colorado probate law.

In the first place, the suggestion assumes that will disputes and the so-called 'breaking of wills' are matters of very common occurrence, which, though a popular supposition, is to those whose business is the administration of probate law known to be entirely incorrect. An attack upon a will is the exception, and a successful attack even vastly rarer. The few cases of rejected wills are published far and wide in the newspapers, while the thousands admitted to probate without contest never are heard of by the public, creating an erroneous impression. I have had personal knowledge of hundreds of wills, and while I have heard of such instances and read of them in the newspapers and judicial reports, yet have never personally known of refusal to admit a will to probate, except in a few cases in which the paper was not attested by the proper number of witnesses. During the last year I have been constantly in communication and conference with other judges having probate jurisdiction and with probate lawyers, and have found that to be the common experience. If men fail to have their wills witnessed by the statutory number of witnesses, they would be as apt to fail to probate them during lifetime, as it would be only another means of having them witnessed. Then, too, the tendency would be to discourage wills by making the process more complicated, and making it impossible in cases where the testator is far from court and physically unable to travel, or when death is imminent and time, therefore, limited. Furthermore, the question of its construction and effect could not be properly and safely determined by the court in a purely *ex parte* proceeding, and if it could, in many cases a decree thus drawn without a knowledge of the future would itself often come up for construction later on.

It is doubtful, in any case, whether it is advisable to override a fundamental principle of civilized jurisprudence, to wit, that 'every man should have his day in court.' Fraud would be much easier under such a system. While in a mental condition unfitting him to do business but not manifesting itself to the court on casual inspection, or under undue influence through fear or other causes, a man is brought by beneficiaries under his will before a probate court and his will admitted to probate. Then his life is taken by the beneficiaries. No matter what facts they might be able absolutely to prove, the mouths of his heirs, who have never had a chance to be heard, are closed. They can not attack the probate, so the will stands and the property goes where neither the law nor the testator wished it to go. On the whole, the suggestion seems a dangerous one. The Colorado probate revision committee considered the remedy suggested much more dangerous than the disease.

JUNIUS HENDERSON.

CURRENT NOTES ON PHYSIOGRAPHY.

SNAKE RIVER LAVA PLAINS.

RUSSELL'S latest report on the 'Geology and Water Resources of the Snake River Plains of Idaho' (U. S. Geol. Survey, Bull. 199, 1902) is as full of physiographic matter as many of his earlier reports have been. The plains are in southern Idaho, measuring 350 miles in length by from 50 to 75 miles in width; they occupy a broad depression between enclosing mountains, and are built of extensive basaltic lava flows often overlying Tertiary 'lake beds.' The lavas have been ascribed to fissure eruptions, but Russell follows Lindgren in referring them to volcanic vents within the area of the plains or in the neighboring mountains. Several lava streams issue from the mountain valleys; one of them was so liquid when erupted that after flowing fully 50 miles as a stream from one to three miles wide it could still spread widely on the plains. The vents within the plains are either cinder cones of the ordinary type, from which very fresh flows are traceable, or low broad lava cones of gentle slope, 8 to 10 miles in basal diameter and only 200 or 300 feet high. The more liquid flows thin out gradually on the plains to feather edges; others are limited by ragged scarps 20 or 30 feet high. The border of the plains contours around the enclosing mountains, converting valleys into bays, spurs into headlands and outlying knobs into 'steptoes' (p. 34). The most remarkable examples of the latter forms are two dissected rhyolitic volcanoes, of which the highest, Big Butte, rises 2,350 feet over the plains. In one district of fresh flows, a road between two towns forty miles apart follows the slight depression between the edge of the lava and the mountain slope, turning into every valley and rounding every spur, and thus doubling the straight-line distance, rather than climb the hills or cross the bare lava. Most of the plains are covered with a soil largely æolian. Extensive gravel fans are formed where certain streams have had to aggrade their courses on passing from mountain valleys of strong slope to the level plains; here Russell unfortunately introduces the term 'upgrading streams' (p. 133), although he has used 'aggrading' in his 'Rivers of North America.' Some fans antedate the lavas and stretch under them, favoring the passage of ground water beneath the plains. Snake River and its larger branches trench the plain where it is lava-covered, and produce a mature topography in the unprotected lake beds further west. Special account is given of short canyons eroded by springs along the border of Snake River canyon.

THE FAN OF LANNEMEZAN.

THE great fan or 'plateau' of Lannemezan, with a radius of more than 100 kilom., at the foot of the Pyrenees in southwestern France, together with its smaller neighbors on the west, the fans of Orignac and Ger, have long been noted for the unsymmetrical form of their radial consequent valleys, whose side slopes are with few exceptions steeper on the right than on the left of the stream. It has frequently been suggested that this systematically unsymmetrical habit might be due to the deflective force arising from the earth's rotation, and the suggestion has as often been doubted because the deflective force must be so small. A thorough study of the problem