live cat into the laboratory and which had probably imparted an odor of cat to the greens.

I did not watch the rats very persistently, but the next day I noted that their behavior was perfectly normal and that the greens had been entirely eaten. It may be said with certainty that these animals which were so terrified had never in their experience been near a cat.

At the same time that I was working with white rats I had to use some rabbits and had occasion to handle some rats immediately after handling the rabbits. The rats did not respond in any peculiar way in the presence of the odor of rabbits, and as this was just as strange an odor as that of cat, it can hardly be assumed that this reaction of fear in the presence of the odor of cat was due simply to the novelty of the stimulus.

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AN EARLIER SNOW EFFECT

To the Editor of Science: In your issue of August 29, Professor Woodman, University of Maine, describes an unusual snow phenomenon, and he states that it would be interesting to know if others have observed anything like it in other localities. It may therefore be worth while to call attention to a similar phenomenon described by Thoreau in his "Journal," Vol. XIII., pages 24–26:

I see, in the Pleasant Meadow field near the pond, some little masses of snow, such as I noticed yesterday in the open land by the railroad causeway at the Cut. I could not account for them then, for I did not go to them, but thought they might be the remainders of drifts which had been blown away, leaving little perpendicular masses six inches or a foot higher than the surrounding snow in the midst of the fields. Now I detect the cause. These (which I see to-day) are the remains of snowballs which the wind of yesterday rolled up in the moist snow. The morning was mild, and the snow accordingly soft and moist yet light, but in the middle of the day a strong northwest wind arose, and before night it became quite hard to bear.

These masses which I examined in the Pleasant Meadow field were generally six or eight inches high—though they must have wasted and settled considerably—and a little longer than high, presenting a more or less fluted appearance externally. They were hollow cylinders about two inches in diameter within, like muffs. Here were a dozen within two rods square, and I saw them in three or four localities miles apart, in almost any place exposed to the sweep of the northwest wind. There was plainly to be seen the furrow in the snow produced when they were rolled up, in the form of a very narrow pyramid, commencing perhaps two inches wide, and in the course of ten feet (sometimes of four or five only) becoming six or eight inches wide, when the mass was too heavy to be moved further. The snow had thus been rolled up even, like a carpet. This occurred on perfectly level ground and also where the ground rose gently to the southeast. The ground was not laid bare. That wind must have rolled up masses thus till they were a foot in diameter. It is certain, then, that a sudden strong wind when the snow is moist but light (it had fallen the afternoon previous) will catch and roll it up as a boy rolls up his ball. These white balls are seen far off over the hills.

This description is accompanied by a drawing, so characteristic of Thoreau, showing the cylindrical ball and its path in the snow.

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QUOTATIONS

THE ARMY AND SCIENCE

The university has not yet been accustomed to think of the army as an institution in which scholarship flourishes. Nor has the army been interested in the work of the university. Each went its way in the belief that its task was so different from the other that the benefit to be derived from cooperation would be outweighed by the trouble involved. That this attitude has been completely changed is due more to the changes in fighting than to those in teaching. It was only a short while ago that such an expression as "the science of war" flattered the activity of generals and their armies. The infantry had to know how to shoot and the cavalry how to ride. Tactical problems, solved by the General Staff, consisted largely in the accurate reading of maps and the direction of marches

and location of points suitable for attack or necessary to be taken.

The war, the end of which the unpolitical majority of us are now longing to greet, was, however, grimly scientific in its every aspect. Aviation commandeered the mechanical engineer, the astronomer and the photographer. The submarine demanded that the physicist tell us all he knew. Without the chemist gas could not be used. Camouflage confused and confounded enemy mathematics: there were no lines straight in the right way, nor rectangles by which to calculate ranges and set guns. The wireless in its manifold applications made the skilled electrician work. Men were selected—they had to be—according to tests determined by the psychologist. And so on, until the colleges used "direct action" and took the young soldier under their immediate supervision, an act in itself necessitating a coordination between the army and the university that was undreamed of twenty years ago.

In an illuminating article in the *Columbia University Quarterly* Mr. Frederick Paul Keppel, until recently Third Assistant Secretary of War, has detailed some of the achievements of academic men (to use an adjective which the War Department affects to loathe) that helped us to win the war. The archeologist designed the best trench helmet; the tropical botanist told us how to get charcoal for gas masks; the astronomer showed us that it is the shape of a moving thing's tail and not its head that determines its course; the lawyer directed war finance; the physicist and chemist brought our production of field glasses up from 1,800 in 1914 to 3,500 in a single week in 1918; the physician greatly decreased our death rate by chemical sterilization and the splinting of fractures; the anthropologist showed that it is the breadth of a soldier's hips and not the length of his legs that gives him marching ability; a doctor of philosophy established conferences for the discussion of technical problems, and thereby prevented excellent suggestions from dying a quiet death in the pigeonholes of the War College.

SCIENTIFIC BOOKS

Menders of the Maimed: The Anatomical and Physiological Principles underlying the Treatment of Injuries to Muscles, Nerves, Bones and Joints. By ARTHUR KEITH. London, Oxford Medical Publications (Henry Frowde; Hodder and Stoughton). 1919. Pp. 335.

Those who had the good fortune to hear Professor Keith during his tour of the United States in 1915 will need no further introduction or incentive to read this book than the statement that the author has written it as he speaks—in the same delightful conversational style which characterizes his public lectures in the college of surgeons.

The subtitle, far too cumbersome for a book heading, gives the substance of its contents which are the written records of the lecture course for 1917–18. "Menders of the Maimed" rightly interprets the book, the inspiration of which is a renewed interest in treatment of the locomotor and nervous systems elicited by the war.

"Men of business find it necessary from time to time to take an inventory of the goods they have in stock; occasions arise when medical men must do the same thing and make a survey of the means of treatment at their disposal. That is the case now; surgeons are being called on to restore movement to thousands of men who have been lamed or maimed in war; they find it necessary to reexamine the foundations of their science and practise. In this book I have sought to help them by a restatement of the principles which underlie the art of orthopædic surgery." Thus the author expresses his mission and he carries it out in a way at once characteristic of himself and appealing to the reader for he builds the history of orthopædic surgery around those who themselves made the history. As we read we actually feel the presence of John Hunter's restless active figure. We see Hilton, sarcastic and independent, his waistcoat with its decisive pattern linked from pocket to pocket with a heavy gold chain. H. O. Thomas is in his workshop fashioning splints. Little seeks