

Correspondence.

Dark Meteors.

To the Editor of the SCIENTIFIC AMERICAN :

In SCIENTIFIC AMERICAN of August 1 I read, under "Astronomical," the observation of Prof. Brooks at Geneva, on July 22. I have the honor of informing you that the observation of dark meteors passing across the disk of the moon is not at all new in astronomical records. Already some years before Prof. Brooks I discovered the phenomenon on April 4, 1892.* This was announced in three papers in the Dutch periodical *De Natuur*, respectively dated January 3, 1893; September 4, 1893; and January 8, 1894.

Recently, I gave two papers on the subject, the first entitled "Observation de Météores Hors de l'Atmosphère Terrestre" (*Bulletin de la Société Belge d'Astronomie*, I, No. 8), May 31, 1896, and the other "Mitteilungen über Meteore," in the *Mitteilungen der Vereinigung von Fremden der Astronomie und Kosmischen Physik*, Jahrg. VI, Heft 8, redigiert von Prof. Foerster, director of Berlin Observatory.†

Some elements of the meteor shower observed by me on September 13, 1895, across the sun's disk have been calculated by Prof. Dr. Y. A. C. Oudemans, director of the Utrecht Observatory.

The above named articles prove undoubtedly my priority on this subject. On the other side the "cosmic meteors," as I called them, have also been observed, on my suggestion, by Dr. A. A. Nyland, with the great Fraunhofer refractor of the Utrecht Observatory, by some other observers, who assisted me, and by one in Dutch India (isle of Lombok).

I am, dear sir, yours faithfully,

A. M. DU C. MULLER.

Nymegen, Holland, September 2, 1896.

Hunting the Kangaroo.

BY GEORGE E. WALSH.

Twenty and thirty years ago the visitor to Australia could see more kangaroos to the square mile than there are jack rabbits to-day, and it was literally impossible to avoid the countless flocks that swarmed over the whole island. With a good rifle he could take a position on a rock and shoot all day long, until tired of the monotony of the slaughter, or until some "old man kangaroo" became desperate at his killing and decided to turn the tables upon him. In those days men were paid liberally by the sheep owners to kill off the kangaroos, and it is reported that one hunter would kill several hundred a day, and one man is known to have cleared \$4,500, free of living expenses, in a single year.

The visitor to Australia to-day discovers a decided change in many ways, but not more so than in the comparative scarcity of the kangaroo. He may reside on the island for a month or two and not get a sight of one of these queer looking animals. He is similarly disappointed as the visitor to Florida who expects to see alligators and diamond-back rattlesnakes crawling about every marsh and lagoon, making life actually dangerous and fearful. The conditions which the pioneers in both places met and overcome no longer exist, and both Florida and Australia are so built up and civilized that the visitor must don the rough clothes of the hunter and tie himself to the desolate backwoods, far away from all towns and railroads, if he would find game worthy of his sporting blood.

There are kangaroos in Australia in numbers sufficient to satisfy the most exacting, but they must be hunted up and their favorite feeding places be located by good guides. The sheep herders caused the creatures to be destroyed in such numbers, before they became of any commercial value, that they are now rarely found outside of the "bush." In some of the private parks and large estates a few semi-wild kangaroos are kept, but they are protected so closely by laws that no one ventures to disturb them.

About three hundred miles back from the coast, thousands of kangaroos can be found. A trip of one hundred and fifty miles back from Melbourne will take the hunter into a section of the wild country where good sport can be enjoyed. The country abounds in straggling bushes, with very few tall trees or woods to obstruct the travel; but the bushes, while in the open country, are tall enough to make good hiding places for the marsupials. They feed on the grass, roots, and leaves, and when startled by a hunter leap over the bushes as easily as a rabbit jumps over the tufts of grass.

We left Sydney one bright afternoon with a party of four hunters and two guides, and started for the interior to try a week at hunting in the Australian "bush." Hunting small and large game in the various States of the Union and Canada had brought its pleasure in times past, but the novelty of hunting kangaroo in their native "bush" excited more feelings of pleasure and anticipation than we had felt for many years. We anticipated little danger, although our guides assured

us that the element of danger was always present in shooting these wild creatures. We were armed with good rifles, hunting knives, horses, two good kangaroo dogs, and the various accouterments necessary for any good hunt. The dogs were a peculiar breed of large greyhound. They were much stronger and rougher in appearance than the ordinary greyhound, but they were equally as fleet and capable of running down a kangaroo in the open. They were powerful and fierce enough to attack the largest kangaroo, although the results of the battle were not always in their favor.

Thus equipped for our journey, we took the railroad as far inland as we could, and then started across country on horseback. The land was wild and rugged, overrun with strange plants and tree growths that attracted our attention by their beauty and oddity. Beautiful birds fluttered over our heads, and hissing serpents disputed our passageway. Our guides, knowing the harmlessness of these reptiles, either passed them without notice or hit them over the head with their strong riding whips.

As we proceeded inland the country became more open, but more wild and desolate. The foot of man seemed never to have traversed these lonely wilds. Our first sight of a kangaroo was made on the second day out. While eating lunch in a quiet part of the country, the "bush" around suddenly seemed to become alive with animals. The heads of some strange creatures bobbed up above the bushes on every side, and a peculiar tapping noise on the turf alarmed us. We were on our feet instantly, with rifles in hand, prepared to meet any kind of strange beast. Suddenly in front of us a succession of kangaroos passed, crossing a narrow opening so that we could secure a good glimpse of them. Our guides hastily raised their rifles and shot, but the rest of us were too disappointed to do anything. These diminutive creatures, scarcely three feet high, the famous Australian kangaroo! Why, we expected to see animals seven, eight, and possibly ten feet high, and to have our hopes dashed to the ground in this way completely demoralized our hunting nature. Both natural history writers and hunters must have willfully lied when they described the kangaroo, or else our imaginations had stretched the dimensions to an unwonted degree.

We were considerably reassured, however, a few moments later, when our guides brought in two of the dead creatures, remarking: "They'll make good eatin'. Ever taste paddymelon?"

"Paddymelon! Aren't they kangaroo?" we gasped in unison.

"Strangers that don't know sometimes call 'em that; but they're only paddymelon. We've run across a flock of 'em, an' you can get some good shots at 'em."

This was our first lesson in Australian natural history, and our guides gave us further valuable instruction before the day was over.

"Now you might be a-callin' this creature a kangaroo," one of them said toward dusk, as he suddenly hit something on the ground with his whip, and then picked it up. The creature that he had knocked over was not more than a few inches long, but he was an exact imitation of all pictures we had ever seen of full-grown kangaroos. The well developed hind legs and tail, the peculiar head and ears, the pouch for carrying the young in front, and the dwarfed front paws, were all there. Magnified about twentyfold, and a perfect kangaroo would be produced.

"No, that ain't nothin' but a kangaroo mouse, and he ain't what we're hunting after no more than the paddymelon."

It may be of importance to mention just here that the kangaroo and the kangaroo mouse represent the two extreme types of Australia's strange animals. Between these two extremes there are many other animals with the same essential features and apparently differentiating from each other only by their size. The kangaroo is the largest of the whole class, and next to him comes the wallaroo, then the wallaby, then the paddymelon, a specimen of which we had before us, the kangaroo rat, and the kangaroo mouse. The bush wallabies and paddymelons furnish more general sport to the hunters than the kangaroos, for they are more plentiful and not so timid. They move about the bush with great agility, and resemble shadows more than animals fitting around. It is a true test of one's skill to bring them down. During the next day or two we shot several of these animals, and prepared ourselves for the more exciting sport of kangaroo shooting. The dogs rather despised these smaller kangaroos, and did not offer to chase them unless they felt restive and sportive and needed exercise.

The first kangaroo was sighted on the fifth day out, and he loomed up in the distance so suddenly that we all made an exclamation of surprise. He was five hundred yards away, and our guides informed us that we could not approach much closer without startling him. We drew about one hundred yards nearer and then started to get sight on him. The first bullet flew a hundred feet wide of the mark, and the kangaroo was off in an instant with the speed of an express train.

The next one we ran across we took the advice of our guides and raised the rifle to shoot over the crea-

ture, and then gradually lowered it until the distance could be accurately gaged. Instead of being alarmed at this, the creature merely looked up each time and then resumed his grazing. But suddenly the distance was properly gaged, and a bullet struck the animal in one of his fore paws.

Such a wound does not by any means handicap the animal in running, but the pain of the wound seemed to paralyze him, for he circled around several times and struggled and rolled upon the ground as if mortally wounded. The two dogs rushed forward to pounce upon the game. Their deep baying close at hand brought the kangaroo to his senses, and placing himself against a tree he waited for the onslaught. The hounds, expecting to find the animal nearly dead, plunged recklessly forward, and the foremost suffered as a consequence. With one sweep of his sharp, sickle-like hind claw, the old kangaroo nearly disemboweled him. The hound fell over with a yelp and expired in an instant. His companion stood at a safe distance and growled savagely.

At this instant we appeared upon the scene, and seeing so many enemies, the kangaroo suddenly turned and started off at a speed that no horse could attain. We raised our rifles and took a flying aim. Two bullets brought the creature to the earth dead.

The hind legs of the kangaroo are powerful weapons. One long claw, hard as bone or steel and sharp as a knife at the point, gives the kangaroo an implement that can kill a man or beast with one blow. The front paws are not so strong, but an old fellow has strength enough in them to seize a dog and hold him in a helpless position. When chased into the water they will sometimes seize a dog and hold him under the water until dead. On land they will seize an enemy and hold him until the hind claws can cut him nearly in two.

They are also good boxers, and when the natives attempt to kill them with clubs they dodge the implement with all the skill of a professional pugilist, and unless the man is an expert he may get the worst of the encounter. Quite a number of hunters have been severely injured, and some killed, by attempting to corner a wounded kangaroo when enraged by a bullet wound. It is much better to bring the animal down with the rifle bullet, and be sure that he is dead before approaching too close.

The fleetest horse cannot keep pace with the larger species of kangaroos, but with a little tact the hunters are enabled to capture them whenever they are sighted. When the creatures are once started on a run, they will not swerve from their course, but continue straight onward, leaping over bushes, rocks, and all ordinary obstacles. The hunters generally station themselves in the line that the animals are most likely to pursue, and then wait until the dogs or the rest of the party start them up. Several flying shots can thus be obtained, and if one is accustomed to the work he will bring down one or more of the fine creatures.

Exposed Dry Plates on a Tour.

Exposed plates, and how shall we pack them, is one of those troubles always with us when away from home on tour. Many are the methods which from time to time have been suggested, most of them more or less efficient.

During last summer holidays having used what plates had been taken away, some of Belgium make were bought and used. Upon opening them out in the dark room, the careful manner of packing employed was apparent. Each couple of plates were placed face to face, and wrapped up in thin paper. The comfort of handling, both in unpacking and replacing exposed plates in this manner, was such that this method of packing our stock of plates when away from home has been followed with every satisfaction, and can be commended to any in doubt as to how to store them until home be reached again.

It is simply necessary on taking them out of the slides to dust them, place two face to face without anything to separate them, then wrap in thin brown paper, and so on until the whole number are done. Mark on each package in pencil the subjects the plates have been exposed on, and any other mark of identity thought advisable, then put them twelve at a time in the ordinary boxes they were bought in, which may then be wrapped up in stout paper and fastened with wax or string, and when home again they are ready to be dealt with in the ordinary manner.—The Amateur Photographer.

Foreign Bodies in the Throat.

The difficulty of removing fish bones and similar obstructions impacted at the lower end of the esophagus is well known, and various mechanical measures and appliances have been invented to deal with the difficulty. One of the most simple, however, and, as reported, one of the most effectual, is to administer to the patient a pint of milk, and forty minutes afterward an emetic of sulphate of zinc. The fluid easily passes the obstruction, and is, of course, rapidly coagulated in the stomach into a more or less solid mass, which, on being ejected, forces the obstruction before it and so effects its removal.

* These dark meteors were observed several times more by me, and also passing across the sun.

† Communicated by Prof. Foerster to the Astronomical Assembly at Berlin, on May 26, 1896.