

of no intrusion. She argued therefore: I will try Mrs. Greybird; if she refuses me I am stronger than she and I can take forcible possession, and acted accordingly. We can well imagine how the poor little greybird would puzzle her head to account for the enormous size of her young one, and wonder more at his apparently enormous appetite, and then again she must have tried various kinds of food before she hit upon the right one.

#### THE CAT.

Was it instinct that prompted the cat to call in the assistance of her older kitten in the case related to me by Professor Osler? The cat belonged to a member of his family, and he was witness to the extraordinary evidence of reasoning. She had three little kittens about a week old, when she disappeared, and was gone for two days—evidently had been shut up somewhere. When she returned the mammary glands and nipples were swollen hard, and the little kittens tried in vain to extract their nourishment from them. In the house was a half-grown kitten of a former litter, and the mother was seen to coax and persuade it to suckle, which it did to the mother's infinite relief, and the swelling and hardness thus removed, she returned to the starving little family once more, and again dismissed the older kitten. Was it instinct, I ask, that led to the train of thought which determined the cat on the action? Was it not the reflection—the thinking back and the sequence of the argument—that led her to do that which was not instinctive, which was not the effect of generations of instinctive action, but which was simply a very wise suggestion arising from intelligent consideration.

#### THE DOG.

Evidences of reasoning powers in dogs are so constantly occurring in our own experience, and so frequently related by others that I need scarcely wait to illustrate them in dogs. You need not go further than the college hospital, where the little terrier dog "Major" frequently gives evidence of reasoning powers which cannot be doubted. As some of you are aware, whenever a horse happens to get loose in the night this dog will not only drive him back and keep him in his stall, but will keep up an incessant barking under the grooms' rooms until he is obliged to get up and secure the horse. And this once done he retires quietly, satisfied that

all is right! On one occasion, evidently without his knowledge, owing to the stable being full, a horse had been tied and bedded down in the passage way of the stable, shortly after it was closed up. This irregularity was discovered by "Major," and he at once summoned the groom, who had to show the dog that the horse was tied and tell him that it was all right; and being thus satisfied he retired to rest and made no further alarm that night. What instinct could produce such trains of thought as are here illustrated? Does this dog not know by his intelligent faculties, in other words is he not conscious that a horse occupying a stall should be tied; that he should at least not be free to roam around the stable? We find that he takes no notice of a horse untied when in a loose box; he is evidently conscious of the difference between a stall and a loose box. He has learned from observation, a chain of reasoning in fact, that the groom is the person whose duty it is to tie up the loose horse. Hence he calls him, and seeing the halter readjusted and securely tied, he argues that everything is all right and he can go to sleep.

#### THE COW.

In the domestic condition the bovine species are not permitted that degree of freedom which usually calls forth the evidences of reasoning powers which in the wild or semi-wild condition they constantly exhibit. Take, for instance, a cow with a young calf on the trail from Montana to Alberta which was discovered one morning, as the herd was being started, with a broken leg. The mother, with that strong maternal attachment which these cattle usually possess, could not be induced to leave it. Yet, wild and undomesticated as she was, she remained behind the herd, a restless and anxious spectator of our manipulations in the act of applying splints and bandages temporized on the prairie, to the fractured metacarpal bones of her calf. After being bandaged it was allowed to suckle, and be caressed by the mother, who offered less resistance when it was again caught and lifted into the calf-waggon, in which were others too young to travel with their mothers. After seeing it thus satisfactorily cared for, she willingly allowed herself to be driven forward to the herd and comported herself as if freed from all anxiety for her young one, till the noon halt was made, when she at once came bellowing back to the waggon,