

ridge of the nose. These were cauterized in five sittings, extending over a period of two months, followed by the application of albolene. He received no internal treatment, except some cascara and glycerine for his bowels. The following hay-fever season he was perfectly free, and during last season, '92, he had slight trouble, but nothing to prevent him doing his work.

*Case 3.* A.J., farmer; age, thirty-five years; was a powerful man, weighing about two hundred pounds, a perfect picture of health in appearance. His voice was husky from slight laryngeal congestion; slight pharyngeal catarrh. Considerable hypertrophy of the inferior turbinates on both sides. Breathing, comparatively free, except that he was unable to groom his horses. As soon as he attempted this, his nose became completely blocked and violent sneezing came on, with some tightness of breathing. I used an alkaline spray to the larynx and pharynx. After having opened the bowels freely with calomel, I gave him Coca wine. The cautery was applied to the turbinates. Now, perhaps, it may be thought that the laryngeal congestion was the cause of the obstructed breathing. I should be inclined to think so, but I asked him to plug his nose with cotton while cleaning his horses. This had the effect of relieving him. This was done a few times as an experiment. When he left me he was decidedly better, and he told me if the trouble returned he would come back. I have not seen him since, and I will allow you to come to your own conclusions as to the permanency of the result.

*Case 4.* Mrs. B., age, forty-five; has never had asthma, but for twenty years has been troubled, more or less, with violent sneezing and lachrymation, and intense itching and tingling sensations in the nasal passages. She states that as soon as she went into a crowded room the trouble was increased.

Examination: Left side. The inferior turbinate at the anterior end in contact with the septum. Hypertrophy of the soft tissues over the middle turbinate. Sajou's area, on both sides, extremely sensitive. The cautery was applied to the sensitive spot, as well as to the enlargements. Solutions of cocaine, menthol and camphor menthol were also used locally. Valerianate of zinc, asafœtida and strychnia, were given internally. I began the treat-

ment in the fall of 1889. She was much improved. During the next hay-fever season she visited a sister who lived in Illinois, north of Chicago, on the lake shore. During former visits, she was always worse than when at home in London; but this time she prolonged her visit to six weeks, and was perfectly free, except about an hour on one day, when she had slight symptoms of her previous trouble. Since that time (during 1891-92) she has been troubled more or less. She is much better than before the treatment, but not cured by any means.

*Case 5.* Mr. B., chemist. Is affected only during the hay-fever season. He came to me, last year, after the attack had begun. Was treated during the hay-fever period of '91, by Dr. Price-Brown, of Toronto, by cautery and local applications of cocaine and menthol. I gave him the same treatment last year. Great improvement followed, and he states he got through the period quite comfortably.

I have treated quite a number of other cases, but it is not necessary to take up any more of your time, as the ones reported are fair samples of them. I may state that I tried in several cases the application of a solution of atropine, one per cent., to follow the cocaine solution. Dr. Glück, of Omaha, recommends it highly. He states that it prolongs the effect of the cocaine. I gave it up as useless. It produced dryness of the throat even when reduced to one-quarter per cent. solution.

In the discussion which followed, Dr. Gowan inquired if internal treatment alone ever completely relieved the symptoms.

Dr. Eede asked, at what period of life did hay-asthma usually attack persons.

Dr. Campbell asked if irritation of the nose was a cause of all cases of hay-fever.

Dr. Hodge reported a case.

In replying Dr. Butler stated that the use of zinc Valerianate, asafœtida and zinc phosphide may help to relieve, but he had never seen any striking results follow their administration. As to period of life, his cases were all between twenty-five and fifty years; none had been below twenty-five years. He had never seen a case of hay-fever in which the nose was not extremely sensitive.

Owing to the unavoidable absence of Dr. MacArthur, the report of his case was laid over until the next meeting.