is also beneficial, according to my experience, in spasmodic retention of urine and urethritis, and in headache, resulting from passive congestion, when remedies directed to the stomach utterly fail. In isolated pathological states of the system like those named, also in spermatorrhœa, orchitis, palpitation of heart from reflex, or sympathetic action, its sedative influence is obvious and important.

But are its good effects always as palpable as in the foregoing cases? and has it no unpleasant or injurious consequences? I have not found that it possesses any anodyne influence in the pain of true inflammation, *e. g.*, in forming abscess. But not so in pain which is reflex; hence disappointment is liable to arise. In reply to the question, "What are its noxious, or unpleasant effects?" I have but a single instance to report, if we except that of the infant above. I refer to a lady whose system was unusually sensitive to the action of every medicinal agent; one-fourth of an ordinary dose being ample. Only four grains of potass. bromid. would speedily produce numbness in the extremities, and shooting, burning pains throughout her whole system; both gradually passing off without other evil consequences. The fact was repeatedly tested, and with the same result; but with no corresponding benefit. Are the peculiarities of this case, as regards the action of medicines, to be ascribed to the degeneration of the structure of the kidneys in the patient, and, consequently, to a loss of eliminative power in that direction?[1] The question may perhaps be answered, so far as the bromides are concerned, by asking another, viz: When these organs are in health, and these articles are freely used, is the urine highly charged with them?

The evidence, whatever it may be, respecting their properties, as furnished by the foregoing cases, is in some measure obscured by their administration in combination with other articles of the Materia Medica. Although the latter may be by no means deficient in power in other suitable cases, yet it is confidently believed that if used alone, or without the bromides, in the cases detailed, their beneficial effects would have been much less prompt and decisive, if not entirely negatory.

ART. IV.—*On the Therapeutical Action of Sambucus Canadensis in Albuminuria.* By ROBERT MCNUTT, M. D., of Marshall, Mo.

CASE I.—In 1866 the most prominent physicians in Saline and the adjoining counties were consulted by Mrs. S., aged about seventy-five, who was

[1] For an account of the autopsy in this case, see Emmet's "Vesico-Vaginal Fistula," Case 74, p. 237. One kidney had been entirely destroyed by tuberculous deposition and had done no work for many years, the other was in a state of fatty degeneration.

suffering from general dropsy, the result of chronic Bright's disease. Their treatment continued for many months, but afforded no relief; she had hydrothorax and œdema of the lungs, and was considered to be incurable. Some of the neighbours visiting this old lady, told her of cures of dropsy effected by the use of the inner bark of the common elder, steeped in hard cider. Accordingly a quantity of the elder was obtained, the bark scraped off and put into a large bottle, and hard cider poured over it. This preparation was used in ounce doses three or four times daily. In a few days improvement was quite marked, and she convalesced rapidly. She has never been sick since that date up to the present time, March 16, 1869.

CASE II.—*May* 1, 1867. Was called to see Lillie S., aged seven years, who had always enjoyed good health, and was free from any hereditary taint of gout or scrofula. She had never had scarlet fever. Her mother stated that for weeks past she had noticed Lillie's limbs to have been swollen. Her face was quite puffy, and pitted on pressure. She complained of a rheumatic feeling in her limbs; was quite pale; appetite not bad; bowels constipated; urine scanty and high-coloured. Prescribed a saline cathartic, and the use of cream of tartar and juniper-berry tea.

5*th*. Worse; prescribed pulv. digitalis gr. ¼; pulv. scillæ gr. jss, with potass. bitart. every four hours. The urine, on testing with heat and with nitric acid, showed the presence of a large amount of albumen. Not having a microscope, could not ascertain whether there were any epithelial cells, or casts of the tubuli uriniferi. The urine was smoky coloured, and showed traces of blood, and, on standing a few hours, a large amount of sediment was deposited.

8*th*. Much worse; albumen in the urine increasing; abdomen very large. Ordered the entire body and limbs to be tightly bandaged with flannel; gave bitartrate of potassa in sufficient doses to purge, and a pill composed of calomel, squill, and digitalis.

11*th*. Symptoms all aggravated. Ordered: R.—Spts. æth. nit. f℥j; syr. scillæ f℥jss; ant. et potass. tart gr. ij; pulv. gambagiæ gr. viij.—M. S.—A teaspoonful every three hours.

14*th*. No improvement. Continued treatment with the use of acetate of potassa several times daily.

17*th*. Cutaneous surface distended to its utmost extent; urine more smoky, and showing more traces of blood than heretofore; largely albuminous. Treatment, so far, quite unavailing. Gave an unfavourable pragnosis, and requested a consultation.

18*th*, 19*th*, and 20*th*. No better; continued treatment, but gave her medicine every two hours. Appetite by this time had gone; eyes closed by the œdema of lids.

21*st*. Met Dr. Benson, of Miami, in consultation, who recommended, in addition to the articles already used, creasote and Lugal's solution, which afforded no relief. At midnight I was sent for in great haste, as the girl had violent spasms. Her mother stated that she had been stupid for several hours. Found her labouring under uræmic coma and convulsions. The latter were almost incessant; pulse about 140. Pupils of the eyes could not be seen, so great was the œdema of the lids; breathing short and rapid. There seemed to me to be considerable hydrothorax and œdema of the lungs. Recovery seemed hopeless, but, acting on the principle that "while there is life there is hope," I determined to place the patient in a hot bath immediately, and to give ipecac and tartar emetic to procure prompt emesis. The spasms were soon

relieved by these measures, and by morning I had the satisfaction of finding that the coma had disappeared.

22*d*. No diminution of the amount of albumen in the urine. Ordered the following: ℞.—Syr. scill. f℥j; tr. verat. virid. gtt. j; pulv. ipecac gr. j; nut. et potass. tart. gr. ¼ every two hours, unless vomiting is produced, and in that case a dose every three or four hours. Slight diaphoresis was obtained, and it seemed to me that the symptoms were not quite so distressing as they had been for several days previously. I was convinced, however, that the relief was only temporary.

23*d*. At my request Dr. M. W. Hall, a physician of great reputation in the county, met me in consultation. He advised the following combination of diuretics: ℞.—Potass. bitart. ℥jss; potass. nitrat. ℥ss; pulv. scillæ maritim. ℥ij; pulv. digitalis gr. xxx; ant. et potass. tart. gr. ij.—M. S.—A teaspoonful of the powder four or five times daily. He also mentioned the cure of Mrs. S. by the use of hard cider and elder bark, and thought it might be worth while to give it a trial, remarking that he doubted benefit being obtained in this case by any remedies; in which opinion I fully coincided. However, I was like a drowning man grasping at a straw. I had the bark and hard cider immediately obtained, and I saw that it was regularly administered.

26*th*. Albumen in urine diminished; less sediment and less appearances of blood in the urine; albumen not quite so large. Continued treatment.

29*th*. The amount of albumen in urine remarkably diminished; dropsical condition rapidly subsiding.

June 1. Increased the amount of hard cider and elder bark, and diminished the potash prescription. The albumen in urine still decreasing.

14*th*. Could detect scarcely any albumen in the urine. Changed the prescription to tinct. ferri chlor. and quinia, and continued the hard cider and elder bark. In a week or ten days more, all medication was discontinued. Lillie S. has not been sick since.

Case III.—*April* 22, 1868. Was sent for to see Miss Molly H., aged eleven years. In the winter she had had scarlet fever, and, as a sequel, dropsy. She had been skilfully treated by an old and experienced physician, but the parents not being satisfied, sent for me. For eight days I treated the case with the usual remedies. The hot-air bath caused diaphoresis, and afforded apparent relief. The urine was tested every day, and the amount of albumen seemed steadily to increase.

May 1. Patient worse in all respects. Prescribed pulv. ipecac., pulv. gambogiæ, āā gr. ½; potass. acetat. gr. xx; syr. scill., spts. æth. nit. āā gtt. xx, to be taken every two hours, unless it purge. Also a tablespoonful or two of the infusion of the elder bark in the hard cider every two hours, with the hot-air bath night and morning.

4*th*. No albumen in urine; dropsical effusion all gone. Directed that the bark and cider be continued for some time. This girl has not been sick since.

In the late editions of the *United States Dispensatory*, the Sambucus is stated to be a hydragogue cathartic and emetic. It has not proved so in my hands. Dr. Hall says it has caused neither vomiting nor purging in any experiments that he has made with it. This may be owing to the hard cider extracting only certain principles from the bark. I have some-

times thought that the hard cider alone might act as a potent therapeutic agent in the cure of albuminuria. The cases which I have had were so urgent, and I was so solicitous about them, that I did not dare to waste time by experimenting. In subsequent consultations with Dr. Hall he has expressed the belief that the green bark of the sambucus is singularly potent in correcting the pathological condition which leads to the development of albuminous nephritis. I would now approach a case of albuminuria with as much confidence of curing it by the means used in the cases here given, as I would an ordinary ague by means of sulphate of quinin.

I believe, however, that the Sambucus Canadensis will be found of use only in cases of albuminuria not complicated with cirrhosis of the liver or structural lesions of the valves of the heart. Its action, so far as I have tested, is only to correct that morbid condition which results in the elimination of albumen by the kidneys. There is one remark worthy of note, and that is, that whatever may have been the structural changes in the kidneys, recovery in all the cases has been complete, and the cases seem to have been exempt from ordinary ailments since.

Should a more extended trial establish the efficacy of this remedy in Bright's disease, whether acute or chronic, all that is desired by the publication of this article will have been accomplished.

[The above cases appear to very conclusively show the therapeutic value of Sambucus Canadensis in albuminuria, and fully justifies the remark of Prof. Stillé (*Therapeutics and Materia Medica*, 3d ed. p. 552) that this article "certainly deserves to be resorted to more frequently than it has been." Prof. S. (o. c.) states that Sydenham, Boerhaave, Gaubius, and Desbois de Rochefort, used the inner bark of the Sambucus advantageously in many cases of dropsy; and that other cases have been treated with equal success by Hospital, Bonnet, Bergé, Mallet, Reveille-Parise, and Fauvre.—ED.]

ART. V.—*On the Detection of Red and White Corpuscles in Blood-Stains.* Read by Abstract before the Biological and Microscopical Section of the Academy of Natural Sciences of Philadelphia, and by it ordered to be published. By JOSEPH G. RICHARDSON, M. D., Microscopist to the Pennsylvania Hospital.

SINCE the elaborate researches of Gulliver and Carl Schmidt, in regard to the exact variation of size among the blood corpuscles in different species of vertebrates have been laid before the profession, microscopic examination of blood stains has assumed an importance in medical jurisprudence far greater than any or all the other methods as yet suggested