and it is easy to attribute to the medicine effects which are due to rest. These cases are almost always persons easily fatigued, whose occupation requires prolonged standing, and whose varices, in consequence, take an exaggerated development by the force of gravity. A few days of rest in the hospital suffice to calm the pain and render the varicose swellings less apparent. This is what case VI. taught us. The patient who after ten days of treatment was considerably better went walking about the hospital; the next day the varices were as bad as ever.

Case IV., however, seems to me an exception. This patient had had varices for nearly ten years. After ten days of treatment the enormous varicose veins were quite perceptibly shrunken and the knotty tumor of dilated veins over the tibia had almost disappeared. The benefit in the case of this patient was lasting, as was shown by the fact that two months afterward, on returning to the hospital, he was found to be entirely well of his varices.

In Cases V. and VI. no marked benefit was noted. Case VII. (varicose ulcers) was attended with notable amelioration.

Case VIII. is not conclusive; the varicosity was complicated with œdema of the lower extremities from mitral valvular disease.

In Case IX. no amelioration.

In Cases X. and XI. the use of the hamamelis seemed to be attended with fairly good results.

The witch-hazel does not, then, seem to have any constant action in this affection. In some cases it seemed to do good; in others the effect was nil. It seems to be more beneficial when the veins are simply dilated, and little if at all hypertrophied. There is, however, a fact to which I wish to call attention, namely, to the decided analgesic action of hamamelis in varices, as well as in hæmorrhoids and pharyngeal, laryngeal diseases, etc., and this effect is often observed even when no perceptible amount of shrinkage is seen in the enlarged veins or other swellings.

Cases XII. and XIII. show the advantage which may be derived from the internal and local use of tincture of hamamelis in chronic laryngeal and pharyngeal congestions with varicose dilatations of the veins of the region.

Cases XIV. and XV. illustrate the de-congesting action of hamamelis in conjunctivitis and blepharitis. Hamamelis has also been employed with success in two cases of chronic parenchymatous metritis, as seen in the report of cases XVI. and XVIII. Its efficacy in this disease is especially noticed in the first phase of the disease, when the uterus is congested and engorged and the cervix is voluminous, deformed, patulous, but not indurated.

Case XIX. did not seem to be a fair case for trial of the medicine in chronic enteritis. The disease was probably tuberculous and little amenable to therapeutic agents.

Case XX. (blenorragic orchitis) seemed to be remarkably alleviated and helped toward a favorable issue by the internal use of hamamelis. The analgesic action was almost instantaneous.

It remains to speak of the hæmostatic properties of the witch-hazel. Case XXI. is not a good test

case; the patient was in the last stage of phthisis, and no medicine could have stayed the aneurismal rupture. In America good results have been reported from the hamamelis in hæmoptysis. In the two following cases, communicated to me by an eminent Paris physician, the benefit was unquestionable. The first was a hæmophilic infant, brought to death's door by repeated attacks of epistaxis. The internal and local use of hamamelis promptly arrested the hæmorrhages the first and every succeeding time.

The second case was of metrorrhagia from uterine fibroids. The internal use of fluid extract of hamamelis completely controlled the hæmorrhage and proved a boon to the patient.

CONCLUSIONS.

(1) Hamamelis Virginica is not toxic. Employed in very large doses it produces no symptoms of poisoning in the inferior animals. It does not appear to be toxic to man, despite the fact recorded by Dr. Camperdon, concerning which there would seem to have been some mistake.

(2) It does not appear to have any special physiological action on the vascular system, heart, veins, or arteries.

(3) We have not noted any alkaloid in the bark or leaves; the active principle is probably the essential oil.

(4) Therapeutically hamamelis has an uncertain action. It has, nevertheless, given good results in certain cases of hæmorrhoids. As a hæmostatic its action has seemed demonstrated in some circumstances. The results obtained in varices are not conclusive.

(5) Hamamelis Virginica does not seem to merit the enthusiasm bestowed on it by certain American physicians. It has no clearly defined special action. At the same time, in certain cases, its employment may be attended with success.

NOTE ON A HITHERTO UNRECOGNIZED FEATURE OF THE TEGMENTUM.

BY E. C. SPITZKA, M.D., OF NEW YORK.

THE study of a series of microscopic sections, prepared from the brain of a kitten, in which I had succeeded in inducing complete atrophy of the left cerebral hemisphere, left thalamus, and optic tract (the animal being killed three months after the necessary operation), revealed the following striking and important conditions:—

(1) The anterior commissure is present, and of about half the size of the same part in a normal kitten of the same age. (2) The detachment of fibres which connect the commissure with the thalamus is well developed on the right side and absent on the left. In Fuchsin-stained sections this difference is particularly well marked. (3) The continuation of the commissural fibres ventro-caudal is present on the left side and absent on the right side; owing to the secondary atrophy on the left side of the other structures—particularly the tracts—it comes out with abnormal distinctness. (4) The bundle in question moves along the side of the central tubular gray, gradually approaching the

ventral aspect of the brain axis, and, at the same time, nearing the median raphé. It ultimately moves ventral of the posterior longitudinal fasciculus of the tegmentum, closely underlying it, and in immediate contact with the gray intercalation of the raphé. In the level of the posterior corpora bigemina this bundle is so well demarcated as to be differentiable from neighboring structures by the naked eye. (5) No field of approximate size, structure, or distinctness is found on the right side. To the naked eye no fasciculus is visible; under the microscope a few strands are found in a more lateral situation, which leaves it doubtful whether they are truly homologous. (6) The relations of the developed bundle of the left side change as it continues caudal; it is no longer as compact in the caudal half of the pons, and appears to receive admixtures of fibres from other sources, or, possibly, to exchange fibres with other systems. Still, even down through the oblongata, while the corresponding field of the right side begins to appear, it fails to equal that of the left side. In the cephalic part of the pons it is not so close to the posterior longitudinal fasciculus, more ventral, and instead of being shaped like a square field in section, is elongated, with the long axis of the field parallel to the raphé, and a short distance removed from it. Here the difference between both sides is as marked as in the level of the posterior pair of the corpora quadrigemina.

From these observations it is evident that the posterior commissure is a true decussation, uniting the thalamus of one side with the tegmentum of the other, and that the decussation is "total," or nearly so. Meynert¹ claimed such a connection, but was unable to demonstrate it to the satisfaction of later writers, several of whom are still inclined to regard it as a true commissure, uniting symmetrical ganglia. Forel denies that a connection of the posterior commissure with the tegmentum is demonstrable.² I believe that the atrophy of the denied fasciculus, in my experiment, on the side opposite to the removal of the thalamus, is the first clinical demonstration of its course, by a method which is universally considered reliable, at least with regard to its positive results; while the true position of the crossed fasciculus in the tegmentum is for the first time demarcated. The influence of the removed hemisphere may safely be disregarded, as the isolated removal of this part of the brain does not affect the posterior commissure; the atrophy of one branch of the cross must be referred to the atrophy of the thalamus, and to it alone.

In the cat it is possible to trace the field in question through the tegmentum to the cord by the embryonic (Flechsig's) method, and thus the connection of the thalamus with the cord, through the *crossed thalamo-tegmental* tract, as I propose to term the fasciculus demonstrated in my experiment, thus becomes established.

In conclusion, I may state that the section of this brain axis in the level of the posterior pair of the corpora quadrigemina exhibited a remarkable picture. On the right side the pyramid tract, cortex lemniscus (of Von Monakon), direct thalamic bundle, and posterior longitudinal fasciculus were

normal, and only the crossed thalamo-tegmental bundle atrophied; on the left side this was exactly reversed: the pyramid altogether absent, the cortex lemniscus scarcely identifiable, the direct thalamic bundle³ a shrunken field, and the posterior longitudinal fasciculus greatly diminished; the crossed thalamo-tegmental bundle was, however, well-marked—a convincing proof of our power to produce distant atrophy of nerve tracts in their natural course.

REPORT ON THEORY AND PRACTICE OF MEDICINE.

BY GEORGE B. SHATTUCK, M.D.,

Visiting Physician, Boston City Hospital.

DIAGNOSIS OF CANCER OF THE STOMACH.

THE not infrequent difficulties and uncertainties of diagnosing gastric cancer forms the subject of a communication by Dr. Dujardin-Beaumetz to the Société des Hôpitaux.¹ The uncertainties rest upon three causes: (1) The vague value of the word cancer, (2) the slow development of some cancerous changes of the stomach, and (3), especially, the more exact knowledge obtained of late of another pathological condition of the stomach,—dilatation with thickening of the walls.

(1) Pathology distinguishes the so-called cancerous tumors anatomically, and clinical medicine attempts to divide them according to their course and development, an attempt which is more successful with external than with internal growths. Many morbid growths are still included under the term cancer which have nothing in common except their incurability and fatal termination. This is particularly true in regard to the stomach, where the situation, as well as the character of the lesion, makes a great difference in the course and termination of the case. A small growth at the pyloric, or even at the cardiac, extremity of the stomach may entail pronounced symptoms and rapid death by the disorders in nutrition to which it gives rise, and through its own malignant character.

(2) On the other hand, there are cancerous growths of the stomach analogous to those which attack the breast and the uterus which run such a slow course that they are borne for a series of years without producing any serious change in the general economy.

In support of this position Dujardin-Beaumetz reports a case in which he found cancer of the stomach (confirmed microscopically by Cornil) in a patient who ten years before had begun to suffer from the characteristic signs, including bloody vomiting; at that time a diagnosis of cancer was made, but the patient improved to such an extent upon a regulated milk diet that he was able to resume work, though interrupted by occasional relapses. When seen, during one of these, the year before death, it was suspected, on account of the duration of the case, and notwithstanding the patient's more than seventy years, that chronic ulcer or dilatation must be the cause of the trouble. Beaumetz regards this

³ This is situated lateral in the tegmentum, in contact with the angle formed by the (ideal) union of the cross section of the descending trigeminal root and the posterior longitudinal fasciculus.

¹ Gazette Hebdomadaire, 31, 1884.

¹ Stricker's collection, vol. II.

² Forel, "Die Häube." Archiv. f. Psychiatrie, vii.