added when necessary, to remove the epithelium more rapidly, as with soldiers or the great unwashed. In cases where fat cannot be used, he recommends the substitution of alcohol in the same amount. Either of these preparations may be used in connection with the soap, and the result of such treatment will be fully satisfactory to every one who may try it. The alkaline soap, when applied to a burrow, produces at once an exudation into the same, which causes its immediate recognition. Its later effects are to dissolve the epithelium, and allow the sulphur to work directly upon the animals. The tar, or beech and juniper oils, are added to prevent the generation of excoriation or eczema by the excess of alkali and friction.

Whatever may be said about the ætiology of other cutaneous diseases in which vegetable parasites are detected, it is positively certain that pityriasis versicolor is caused by the fungus called *microsporon furfur*. This is no place to go into any description of the disease, or to state how it differs from *chloasmata*, with which it is often confounded. No two diseases, however, are more distinct. The intolerable itching which betrays the presence of the fungus, will cease at the death of the plant, which is easily caused in a short time by daily inunction with *schmier-seife*. Its effect upon the patches is wonderful.

It has been my object thus to show how valuable and general a remedy we have in this soap, and to endeavor to introduce it to the profession as an instrument both cheap and cleanly, and of sure promise, certainly a long-looked-for desideratum in this class of diseases.

RESEARCHES UPON THE ERECTILE ORGANS OF THE FEMALE, AND UPON THE TUBO-OVARIAN MUSCULAR APPARATUS, IN THEIR RELATIONS TO OVULATION AND MENSTRUATION.

BY DR. CHARLES ROUGET, ADJUNCT PROFESSOR IN THE FACULTY OF
MEDICINE AT PARIS.

[Translated for the Boston Medical and Surgical Journal, by WILLIAM REED, M.D.]

THE organs of copulation in both sexes of the mammalia, under certain conditions, present changes of form, of size, and sometimes of position, owing to the distension, by the blood, of vascular canals which are usually empty or only partially filled. The organs which are the seat of this singular phenomenon are characterized by a structure apparently peculiar to them, and the existence of erectile apparatus is the anatomical condition essential for the manifestation of erection. These propositions, to a certain extent admitted, are nevertheless necessary, to define the exact condition of our knowledge upon the subject of these researches. In reality, erection, turgescence, and sanguineous congestion, are terms which the majority of physiologists use indiscriminately, each for the other,

unmindful that while all portions of the circulatory system can become congested, those only which have the peculiar anatomical structure of the corpus spongiosum or cavernosum, can go on to erection. It is in this way that they usually explain certain movements of the Fallopian tube, by the *turgescence* or *erection* of this organ, in which for good reasons the existence of vascular erectile formations has never been demonstrated. On the other hand, anatomists, of undoubted ability moreover, forgetting that erectile corpora cavernosa are not exclusively formed by a union of larger or smaller veins, numerous and frequently anastomosing, have described or pointed out as erectile organs, vascular tissues in which they could demonstrate nothing except venous plexuses more or less perfect.

The work of Kobelt, otherwise admirable in its details, is marred as to its completeness by a capital defect which I mention here. He attaches but little importance to the particular disposition of the terminal branches of the arteries of the corpus cavernosum, and makes no mention at all of the muscular texture of the trabecules,* of the corpus cavernosum and spongiosum; so that in his estimation the organs of copulation are nothing else than venous plexuses, covered at the glans by a mucous membrane endowed with peculiar sensibility, and overlaid at the bulb and the roots of the corpora cavernosa, by constrictor muscles which play the rôle of accessory venous hearts (*cœur genital*). Moreover he does not hesitate, on the sole ground of the fulness of the venous plexuses of the vagina and the uterus, to admit that the vagina is erectile, and that the erection can extend to the uterine venous sinuses, and perhaps still farther even. If these assertions approximate the truth in some respects, they are far from it in many others; moreover, not being grounded upon experiment or exact anatomical demonstration, they constitute nothing but a happy hypothesis.

In another work (*Recherches sur le type des Organes Genitaux, etc. Theses de Paris*, 1858), taking as an illustration the corpus spongiosum of the urethra, and the bulbs of the vestibule, I have undertaken to establish the fact that there is no special erectile tissue, but only erectile organs and apparatus, and that for the same reason that the corpus spongiosum of the urethra is nothing more than the muscular tunic of that canal, distorted to a degree by the extraordinary development of its vessels; for the same reason, also, no organ is erectile, in reality, except a muscular organ in which the blood conveyed to it by the arteries can be temporarily retained in the capillaries or veins transformed into cavernous sinuses or retiform plexuses.† In some mammals we see erectile formations partially developed in certain parts of the

* *Trabecule*; a term used to denominate the processes or fleshy parts of the corpora cavernosa or corpus spongiosum which surround the areolar spaces.

† The framework of the corpora cavernosa of the penis and the clitoris is, moreover, essentially muscular, and is nothing but an appendage to the muscular envelope of the sexual canal.

muscular envelopes of the genital organs, whilst in others they are wanting, or are atrophied; in the rabbit, for instance, where the apparatus for copulation is formed so exactly upon the same type in both sexes, the glans is represented by certain convoluted vessels only, which spring from the anterior extremity of the corpora cavernosa; at the same time, the bulb of the urethra and the bulb of the vestibule, the genital heart of Kobelt, are completely wanting; but as a compensation, the corpus spongiosum is prolonged, without any line of demarcation, into the muscular tunic of the pelvic portion of the urethra, and expands about the neck of the bladder and the prostatic portion, in a kind of annular enlargement; moreover, in the female, the bulbs of the vestibule are replaced by a general erectile development of the vessels of the muscular tunic of the vestibule, and those of the muscular tunic of the vagina, as far even as the point where the neck and the lower part of the bladder are reflected toward its anterior wall. Do we not see in the Gallinaceæ, folds of skin, abounding in muscular fibres, like the skin of the scrotum, become erectile organs from the sole fact of the great enlargement and development of the capillaries of the surface? Finally, do we not observe the capillaries and veins of the anal portion of the rectum, under morbid conditions, dilate into cavernous sinuses, develope into well formed plexuses, and become a pathological erectile formation in the muscular coat of the intestine? In all these cases there is no occasion to seek the immediate cause of the erection elsewhere than in the contraction of the muscular fibres, which are the first elements and the foundation of an erectile organ.* Among the theories based upon most positive data, there are two which set forth, as the cause of the phenomena, a momentary increase of the capacity of these reservoirs. Valentin assigns to the muscular trabecules of the corpus spongiosum, the function of expanding, by their contraction, the parietes of these areolar spaces and allowing them by that to admit a greater quantity of blood into their cavity; but there is nothing in the anatomical arrangement of the parts which justifies this explanation. The whole corpus cavernosum should be considered as a simple fibrous tube, the interior of which is traversed by muscular cords stretched from one side to the other; and there is incontestible evidence that the effect of the contraction of these muscular cords cannot be other than to draw together, and not to separate from each other, the walls of the tube. Moreover, Kolliker, who in like manner accepts the dilatation of the areolar spaces of the corpora cavernosa as the prime cause of erection, attributes this dilatation, not to the contraction of the trabecules, but on the contrary to their momentary paralysis. I confess that this opinion appears to me to be entirely wrong; it supposes that during the repose of the

* To explain erection by a congestion, a spontaneous turgescence of the vessels, is to advance one of those senseless hypotheses which never satisfy any body.—V. Burdach, *Physiol.*, II. 150.

penis, the muscular framework of that organ is in a state of contraction, of permanent activity, and that it will become, on the contrary, passive at the moment when the functional activity manifests itself. This opinion is in plain contradiction with our observation of pathological facts, which show that in the diseases of the lumbar spinal marrow, accompanied with paralysis of the pelvic organs, the bladder, the rectum, &c., erection, far from becoming more frequent and even permanent, according to the rigorous construction of the theory of Kolliker, is one of the first functions abolished. Finally, when the muscular trabecules are really contracted, whether under the influence of electricity, or, as it is so easy to observe upon the living, under the influence of cold, the remarkable diminution of the volume of the penis is accompanied by a rigidity altogether peculiar and different from its state of repose and flaccidity.

After death, it is not possible to produce artificial erection under a pressure equal to or even greater than the tension of the blood in the vessels, unless we oppose some obstacle, although only partial, to the free return of the liquid by the veins.

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY F. E. OLIVER, M.D., SECRETARY.

JUNE 13th.—*Piece of Wood extracted from the Groin.* Dr. HODGES showed a piece of spruce pine wood, about three inches long, which he had extracted from the groin of a lad. It was lodged about an inch above, and parallel to, Poupart's ligament, where it had remained five weeks, without producing suppuration or inflammation, nor had it interfered with the boy's playing, or attracted his mother's attention, until a little redness and tenderness over the end of the splinter occurring, he told her of the circumstance of its being accidentally forced into the skin, and it was removed.

AUGUST 8th.—*Supposed Pulmonary Congestion.* Dr. MINOT reported the following case, which he considered interesting on account of the obscurity of the diagnosis, the violence of the symptoms, and the rapidity of the recovery of the patient. The patient was a large and robust man aged 40, whose occupation caused him to take much exercise in the open air. He had formerly been employed in sailing a yacht. His habits were temperate. He had had several attacks like the present. On the 2d of August he attended a public festival at Plymouth, and returned to Boston in the evening in a sail-boat. The night was not cold, and he was well wrapped up. He reached home after midnight, and was soon after attacked with a chill, followed by severe pain in the right side, dyspnœa, nausea, and some vomiting. He was unable to lie down, and had a very distressed night. When seen by Dr. Minot, the next morning, he was suffering from acute pain in the right side, inability to lie down, or to take a full breath, and nausea. The pulse was 96 in the minute. There was some cough,