

secured before the india-rubber cord is loosened, since it will be found practically impossible to reapply pressure of this kind after it has once been relaxed. To expedite the ligature of the vessels, which are often very numerous, the surgeon and his assistant may with advantage work on opposite sides of the stump, using the forceps or the catgut-threaded needle as best suits the requirements of the case.

The final steps of the operation, which may, I think, be passed over without special description, are the adjustment and stitching of the flaps.

Full antiseptic precautions cannot be easily carried out in such cases, but Dr Macleod has proved to me that even here they may be so employed as greatly to lessen the more immediate risks, and, indeed, materially modify the whole subsequent history of the case.

ARTICLE III.—*On Medical Education in Spain.* By
JOHN BOYD, M.D., Slamannan.

SEVERAL years ago the duty devolved upon me of corresponding on the part of his family with a young friend from this district, who was studying theology at the University of Valladolid, in Spain; and in order to keep up the practice of Castilian composition, I made use of that idiom in my letters, which necessarily passed through the hands of Señor Cameron, Rector of the Scotch College in that ancient seat of learning, and who, I was assured, regarded them "*no con malos ojos*"—with no evil eye. Although eighty years of age, the venerable rector still took a lively interest in everything pertaining to his native land, which he had not revisited for full half a century; and he seemed pleased to learn that Slamannan, besides the best household and steam fuel, a plentiful supply of plastic material for the fabrication of young doctors, was able to produce epistles done in decent Spanish.

Being desirous of ascertaining the present condition of the medical faculty at Valladolid, I sent a series of questions on the subject; but the severe illness of Mr M. necessitating his homeward return, followed by the death of Señor Cameron, frustrated my endeavours in that direction.

At the commencement of this year, having been incidentally led into correspondence with the editor of the *Lecciones Medicas de Sevilla*, Dr Ramon de la Sota y Lastra, Professor of Clinical Surgery in the Medical School of Seville, I propounded to that gentleman a number of inquiries, not only relating to his own institution, but to those of the whole Catholic kingdom. On the 13th inst. I received a reply, of which the following is a full translation, some personal and business details excepted; but I much

fear I shall fail in conveying the high-toned polish and perspicacity of the original. It begins:—

“ SENOR D. JUAN BOYD,

“ Muy Señor mio y respetable Comprofesor,—It is now time I replied to your esteemed letter of the 8th April. I have not done so before for various reasons. First, from having been in the months of May and June very much occupied with a great number of patients, and with the examination of my pupils; besides which, I was busy with some work for the Medical Congress which took place in Cadiz during the last month; and lastly, from a family misfortune, the man having died who received me in my orphanage, and to whom I owe what I am. . . .

I received the May number of the *Edinburgh Medical Journal*, and read in it your capital review criticising the Italian booklet, *Sulle Spiagge del Mare*; and with the frankness that characterizes me, I tell you that the writing in question is sufficient to stamp the scientific merit of a person, and that you have largely gained, not only in my opinion, but also in that of those in the profession of greater importance than myself. . . . You wish to know the class of studies requisite in Spain to obtain the title of Medico, and I now proceed to state cursorily what you ask me.

“ Education in Spain is divisible into primary or elementary letters, into arts or secondary instruction, and in medicine (since this we discuss) or superior instruction. The elementary is composed of reading, writing, Christian doctrine, Castilian grammar, and good manners. There is no fixed time for the learning of these; they can be studied wherever the parents prefer, but there are public schools in all the villages or municipalities.

“ When desirous of passing to the secondary instruction, it is necessary to submit to an examination of all that constitutes the first, and if the alumnus is approved of, he passes, if not, no. In the secondary education an infinity of matters are required that bear little or no relation one with another,—not adapted—nor can they be adapted—to all dispositions; and the time is insufficient to acquire the most superficial acquaintance with them. But this has been imported from France after our unblest revolution of 1839; and the aim is to form encyclopædists,—that is, “*eruditos á la violeta*,” as quoth the Castilian proverb: they finish, because they have nothing learned during the five years exacted for these studies. At the end of them the boys go out with their heads stuffed with bad definitions, which they forget in a few months. Whether I am right or not in what I say, you will judge for yourself when I mention that the studies of secondary education are the following:—the Latin language, Castilian grammar, rhetoric and poetry, geography, universal history, Spanish history, psychology, logic and ethics, arithmetic, geometry and trigonometry, physiology, hygiene, physics, chemistry, natural history, and agriculture. Exa-

mined and approved of in these different branches, they have to make the exercises for the degree of Bachelor of Arts, which are two general examinations—one of an hour, and the other an hour and a half. Having obtained the B.A., they require to study a year, termed that of enlargement, which consists of three lists, natural history, physics, and chemistry. The secondary instruction can be studied privately or in any particular college; but in all the provincial capitals the councils or *deputaciones* support official establishments of secondary instruction, known by the title of *Institutos*—before the Professorate of which the examinations of the primary and secondary education and that of the grade of B.A. require to be undergone. The superior education, or that of medicine, comprehends the following branches:—two courses of general and descriptive anatomy, two courses of practical dissections, physiology, private hygiene, general pathology, therapeutics, materia medica and the art of prescription, medical pathology, surgical pathology, operations and bandaging, obstetrics, public hygiene; two courses of clinical medicine, two courses of clinical surgery, one course of clinical midwifery. There is no time fixed for going through these studies, but four years is the minimum exacted. The examinations on all these lists are held in the order laid down; that is, they cannot possibly be examined in clinical medicine without having previously passed in medical pathology; and after they have been approved of in all, they must submit to the exercises of the licentiate. These exercises are,—a theoretic examination, during one hour, upon some point of the curriculum, the examinee having to answer verbally to as many questions as may be put to him in the various branches; the second consists in his examining one patient, taken by lot out of three chosen by the judges, from an hospital. The alumnus is allowed half an hour to consider, and he must then describe the history of the patient, diagnose the malady, and establish the treatment. There are three judges, each of whom makes notes of what the candidate has said, and the latter must reply. This second act must continue for an hour and a half. The third act is to practise an operation on the dead body, chosen out of three which are taken by lot; then a programme of operations is formed. All these trials being approved of, he receives the title of licentiate, which qualifies him to exercise the profession in all the Spanish dominions.

“The study of medicine may be carried on privately or in the official establishments; the Government supports, however, medical instruction in the following universities:—Madrid, Barcelona, Valencia, Granada, Sevilla, with residence in Cadiz, Valladolid, Zaragoza, and Santiago. There is, besides, the provincial school of Sevilla, to the professorship of which I belong, subsidised by the *Deputacion Provincial*. This corporation pays the professors, the assembly, the dissectors, the internal pupils, and dependants of all kinds. It keeps the edifices in repair, and replaces the furniture.

Moreover, in accordance with the state of its exchequer, it disburses an annual sum, more or less, to purchase machines, apparatus, instruments, and all the materials necessary for educational purposes, to the expenses of which the products of matriculation and taxes on the titles are also applied. In order to qualify for professorate, and also for being medical director of mineral water establishments, it is requisite to hold the degree of doctor. To obtain this the study and approval in the following lists are required:—normal and pathological histology, chemical analysis, and medical history and philosophy. The studies may be carried on privately, but the examination must imperatively be held in Madrid, the only university where the Government pays this instruction. In addition to passing the examination on the above lecture-lists, the examination for graduation is exacted—this last consisting in writing a dissertation on a given theme, and the judges making objections.

“The number of students who matriculated in the last session of 1878 to 1879 was above seven thousand; the number of licentiates passed was one thousand one hundred and more. This number exceeds the requirements of our population, and I don't know what so many medicos as there will be in Spain in the course of four or five years are going to do.

“I am not sure if I have succeeded in satisfying your wishes with the data I have advanced; but if you want to know anything further, just tell me frankly, since, not to be diffuse, I can't say how it comes that we Spaniards appear to sleep the sleep of Lazarus, and that we seem to require the advent of a Messiah to awaken us. Nevertheless we do not deserve the disrespect with which Europe regards us: it is enough not to manifest vain arrogance.

“With kindest wishes, and much at your service,—I am, yours very truly,

RAMON DE LA SOTA Y LASTRA.

“SEVILLA, 8th September 1879.”

ARTICLE IV.—*Observations on some Points in Dextral Valvular Disease of the Heart, being a Graduation Thesis.* By ALEXANDER MORISON, M.D. Edin., of London.

(Continued from page 629.)

PART IV.

TREATMENT.

THE points which I purpose considering under this heading, with as much brevity as possible, are:—

(1.) The position most appropriate for a patient suffering from “dextral” valvular disease.