results were obtained. Some of the cases of gout were treated during an acute attack with most prompt relief. In the cases of chronic rheumatism the pain, tenderness, swelling and stiffness either disappeared or were much diminished. As early as 1897 Sokolow[3] treated acute and chronic rheumatism in children's joints with the rays with marked improvement.

In 1900 Albers-Schonberg[4] observed marked improvement in cases of gout that had been exposed to the rays.

We believe that this method of treatment is a valuable adjunct in the treatment of these chronic joint affections, but that it is advisable to use massage and passive motion in conjunction with the Roentgen rays. We believe that the rays stimulate and increase the metabolism within the joint, and that this should be taken advantage of, and the massage and passive motion added to assist in the removal of the exudate.

## THE COUNTRY DOCTOR.

JOHN G. WILSON, M.D.
MONTROSE, PA.

A country doctor ought to know what any trained physician ought to know. In order to make a success of his profession he must have a most thorough preliminary education, must avail himself of the advantages of his medical course to the utmost and be determined to improve himself at every opportunity.

His training when he enters on his life's work has simply laid open to his vision a glimpse of its possibilities. His future depends largely on his capacity for work. His savings for years must be reinvested in office equipment. He must embrace the opportunities freely given by the masters of the profession at their clinics to see their work and to learn to a certainty that their success has been by intense application for years along definite lines. Specialism is only a division of labor as practiced by all people as they have advanced through the various stages of development.

The discovery of ether by Morton in 1846 and the theory taught by Pasteur that micro-organisms caused fermentation, amplified by Lister in the treatment of wounds, greatly broadened the practice of medicine, and especially advanced and separated to some extent the practice of surgery from that of medicine.

The acceptance and perfection of antisepsis was of slow growth and gained almost no foothold in this country until Lister's visit to Philadelphia in 1876. Strange as it seems to us who never practiced any other method, the older members of the profession were loath to accept its truths and surgery was taken up by a few men and practiced as a specialty.

About this time Norris and Strawbridge returned from Germany, bringing with them the advances made in the treatment of diseases of the eye, and especially they had gained an inkling of the methods of refraction which were developed, and the oculist soon appeared. It is a fact that nearly all of the headaches just above and back of the eyes are caused by defective vision, and that large numbers of school children go to their physicians and are given headache remedies without end. This is to no purpose, and they finally have to give up school on account of becoming nervous wrecks, unless by chance they happen into some jewelry store and are given some kind of lenses to wear which may relieve the trouble to some extent.

The country physician, therefore, should take up refraction work. The great mass of working people simply can not pay the fee demanded by the oculists and are forced to put up with the indifferent work of the so-called opticians. Two or three hundred dollars will buy the necessary equipment and a month's work in some eye infirmary will give one a start, and one can do as well at once as any optician will ever be able to do.

A general knowledge of the diseases of the eye will be a help to one in many instances. After four or five years study and practice one will become very proficient and will be enabled to make many people more useful and add greatly to their happiness. Physicians as a class must give more attention to diseases of the eye, as a physician loses standing in a community if he fails to distinguish between a case of iritis and toothache, and a patient is apt to tell his neighbors if some country doctor treats a swollen and inflamed eye for weeks and then calls in a specialist who discovers a wheat-beard imbedded in the cornea.

Before the days of antiseptics, McDowell and The Atlees had boldly invaded the abdominal cavity and Marion Sims had given to the world the speculum. Soon after the advent of antisepsis the surgeon found that women could be mutilated almost with impunity and the era of the gynecologist began, but fortunately for suffering womankind it has passed away.

The great work of Howard Kelly in making plain to the profession at large the technic of plastic work, the advances made by McBurney in the operative treatment of appendicitis, the pathway blazed by the Mayo brothers in surgery of the gall bladder, have made it possible for any intelligent man to do good work and save his patients unnecessary suffering and, frequently, an untimely death.

The well-trained physician needs to recognize that the great question before the people now is this: Can my physician take care of me if I am sick and can he tell me how to keep well, or at least guard me from unnecessary sickness?

A physician that can make a diagnosis of appendicitis with certainty ought to be capable of operating and will give his patient a better chance of recovering than he would have if he waits a few hours longer to be sure of his diagnosis before putting the family to a useless expense of sending to the city for a great man and then waiting twenty-four hours more until he arrives, and perhaps by that time he finds the patient suffering with a general peritonitis.

At any rate a man that can not operate is not a safe person to leave a patient with after he has been operated on. If the case does not do well the great surgeon is far away and can not be had when again needed. If the patient wakes up in the night with every symptom of obstruction of the bowel something must be done and done at once, and it now requires more skill to give the patient the best chance than it did to do the primary operation, and if the country physician lacks experience or is deficient in equipment and does not dare to make the attempt to remove the obstruction, the patient will die.

The public at large would laugh at the physician that sent for the city man to reduce every dislocation or treat every case of fracture that came to him. Think of the worry, the anxiety that a bad fracture of the wrist or of the elbow entails.

Since few cases of fracture should be treated without careful *x*-ray examination, and in most instances must be reduced under an anesthetic, and not

3. Vratsch., 1897, No. 46.
4. Muench. med. Wochft., 1900, No. 9, p. 284.

infrequently cut down on and wired, doing an ordinary abdominal section is child's play in comparison, and why should the country doctor be expected to do the one and not the other? If he without question accepts the case of the fracture, which entails, if done in the best manner possible, an expensive outfit, which every surgeon of wide experience dreads, which brings but little credit and almost no pecuniary reward, why not spend the time and learn to do the easy things that need to be done and at the same time bring their rewards with them?

A general practitioner, if he is as capable as he should be, can do almost the same work that any surgeon dare attempt, and his success will be as great and in most instances should be better, for he can give his personal attention to the case.

In too many instances the surgeon must give the after care of the patient almost wholly to some nur e or interne who has had but little opportunity and training. I do not believe, however, that the great operations should be attempted except in an emergency by any but men of the widest experience, as they will be able to do the work in a few minutes less time and by so doing save life. The exercise of their riper judgment would, in not a few instances, save organs that would be sacrificed by the less experienced.

The ordinary practitioner must become more competent or cease to exist. It is proper to be conservative, but that should not serve as a cloak to ignorance. We must be able to do the business that comes to our door, or in many instances it will not be done and the patients will suffer in consequence.

The "patent medicine" evil is no greater humbug than the fake attempted by many so-called specialists who write long articles in the journals on their special subjects, telling how very difficult it is to do their little special line of work—that it requires great skill to make a diagnosis—that a faulty diagnosis leads to faulty treatment and leaves you more in the dark than ever how to proceed; but somehow the impression is left in your mind that you had better send the patient to them, they alone know how to make a chemical analysis of the gastric contents. Don't do it. Just send for the carpenter who owes you for treating his daughter through a long sickness with typhoid and have him throw out a bay window on the side of the office. Equip a laboratory, buy some books and stop loafing. The $300 with which you thought of buying worthless mining stock will equip it nicely, and you will have the means at hand to tell whether your next patient has pernicious anemia or chlorosis, typhoid or malaria, and without these means you can not be absolutely certain. More is now required of the general practitioner than ever before and more is given. Each year people demand more accurate diagnosis and better treatment, and the question is, and it is a live one, where and how are they going to get it? Is the general practitioner going to become equal to the demand, or is the practice to be parceled out to a hundred specialists?

No one physician can do the best possible work in all lines of modern medical practice, but he may do better work in every field and the best work in almost every instance. Constant work in any specialty gives greater expertness along certain lines, and better results ought to be achieved by specialists in some cases.

As we find things to-day the great mass of work done by the specialists is work that should be done at home by the family physician and at far less expense and inconvenience to the patient. We need fewer so-called specialists but more thoroughly trained physicians. They must spend more money for equipment, be capable of making the most thorough examinations, and be prepared to carry out the various methods of treatment necessary to effect a cure.

All honor to the specialist, but hail to that type of practitioner that Carleton had in mind when he wrote these lines:

In the night-time or the day-time he would rally brave and well,
Though the summer lark was fifing or the frozen lances fell;
Knowing if he won the battle they would praise their Maker's name,
Knowing if he lost the battle, then the doctor was to blame.
'Twas the brave old virtuous doctor,
'Twas the good old faulty doctor,
'Twas the faithful country doctor—
Fighting stoutly all the same.

## THE NASAL ACCESSORY SINUSES.*

EMIL MAYER, M.D.

Adjunct Attending Laryngologist to Mount Sinai Hospital; Chief of Clinic, Ear and Throat Department of the Mt. Sinai Hospital Dispensary.

NEW YORK.

While affections of the pneumatic sinuses of the skull have been recognized many years, it is only within the last 15 or 20 years that a fuller knowledge of their occurrence and their attendant treatment has become generally known, so that in mentioning the most important recent advances in rhinology the general consensus of opinion will be that diseases of the accessory sinuses, their diagnosis and treatment are the ones to be so considered.

Since those interested in special fields of rhinology have studied the question from every viewpoint, and voluminous essays have been presented which the general practician hardly finds time to read, a brief résumé of the advances made in this line may not be amiss.

The accessory sinuses of the nose, four in number, are the frontal, ethmoidal, sphenoidal and maxillary. These vary in size in different individuals, and anomalous conditions arise where there may be but a rudimentary sinus or even complete absence thereof. Some of these cavities are large single spaces, some have bony septa dividing them, while the ethmoidal sinus is always divided by partitions. All are lined with folds of mucous membrane which are so thin and so closely adherent to the periosteum that the bone is seen shining through. The mucous surface is coated with ciliated epithelium, the membrane is much thinner than that of the nose and there are few mucous glands. The functions of these cavities may be said to be those of resonating chambers for the voice.

The cavities all have natural openings into the nose, and, while these are so situated in some instances as to drain the cavity effectively into the nose, which is notably the case in the sphenoid and frontal sinuses and partially so in the ethmoid, the opening for the maxillary sinus is almost at its very top and hence drainage here can not be accomplished in the natural manner of a drain; that is, from its most dependent point. Some years ago when the treatment of chronic conditions of the maxillary sinuses was under discussion and it was claimed that washing out this cavity was all sufficient for its cure, I protested as to the possibility of an effective drain of a cavity whose opening was in the top. My views were stoutly contested, but since then those who objected make free openings in the dependent part to

* Read before the Metropolitan Medical Society, New York City, March 27, 1906.