I am much interested in this subject and would be greatly indebted to other members of the staff for opportunities to observe their suspected cases of duodenal ulcer, either at the bedside, at operation or at autopsy.

The following questions need answers: Perhaps those familiar with the literature can give them to me.

Why is duodenal ulcer a male disease?

What evidence is there to show that these small ulcers are intractable in healing?

Why may the persistent symptoms not be due to the cause (duodenal stasis) or the result (periduodenal adhesions)?

Can perforation into the pancreas cause a leakage of pancreatic juice into the intestine at the wrong time?

Why may not the alkaline duodenal secretions be responsible for some of the pain attributed to acid gastric secretions?

THE "OPTOMETRIST" AND HIS "COLLEGES."

BY JOHN C. BOSSIDY, M.A., M.D.,
Ophthalmic Surgeon, Boston City Hospital.

PRECEDING articles by the writer have aimed to show how these so-called optometrists veil a lack of general scientific or medical education in a flood of words; how their constantly repeated claim to the elevation of their "profession" means no more than a listening at occasional meetings to medical papers so abstruse that they startle scientific and medical men by their apparent depth and complexity. The acrobatic ease with which these men handle the most difficult subjects, the self-satisfied way in which they proclaim their superiority over the physician in general, and the oculist in particular, would be amusing were it not serious; for it is certainly a serious thing to see thousands of poorly or partly educated men follow the lead of a few enthusiasts into medical water so deep that even medical experts sail on them with extreme caution.

The men who nimbly do these daring things are the opticians who reason out medical cause and effect in a moment, after either securing their working training in a workshop or behind a counter in most cases, or (if they be decidedly ambitious) by an investment in a correspondence or an attendance course at one of the many optical schools scattered throughout the country.

Let us see how they give a tangential touch to both scientific and medical education and then proclaim themselves the caretakers of the most complex and delicate organ of the human body, — the eye.

From the mass of literature and great number of circulars regarding their get-educated-quick institutions and get-a-diploma-quick methods, the following are selected as truly representative:

Lake Forest Correspondence Optical School (Ill.):

"This is a correspondence course and is taught by mail by a regularly incorporated

Optical College, incorporated according to the Illinois State Laws, endowed with the power to confer the degree of Oph.D. (Doctor of Ophthalmology) upon its graduates.

"Time required to complete course is *one week*. . . . We guarantee to make all students thoroughly competent. The entire fees, including examination, instruction, graduation and diploma, are \$15.00.

"Dr. G. J. W. —"

Detroit Optical College, J. S. O., M.D.:

"By these [the college's] methods of object teaching an intelligent person may become sufficiently familiar with the eye, its defects of vision and their accurate correction by properly adjusted glasses, in a few weeks to be skillful in all the requirements of the art."

This two weeks' course comprises:

"Everything that is necessary to make students practical opticians, including a thorough knowledge of defective vision and its correction by means of the case of trial lenses and test cards, the practical application of prisms, ophthalmoscope, mydriatics, etc."

A diploma (title not stated) is given with this attendance course. Accompanying the catalogue is a letter to me extolling a correspondence course at \$25.00, giving a diploma 16 x 21 inches in size, which contains nothing "to indicate that you have taken a correspondence course."

A circular from the same college mailed later to me says:

"In response to a number of applicants, we made a special club offer for forty pupils. We have enrolled forty-seven pupils in this club, and are furnishing them our \$12.50 correspondence course in optics, for \$7.50.

"The above course consists of a book on diseases of the eye, etc., special type-written instruction; examination questions which will be criticised and returned to you, and 16 x 21-inch diploma."

They later offer a correspondence course at \$2.00 down and \$1.00 a week for six weeks, or \$6.00 cash in advance; a diploma also accompanies this course.

Chicago Ophthalmological College and Laboratory:

"This course consists of the anatomy and physiology of the eye, their relation to associated organs and the sympathetic system, physical optics, physiological optics, lens building, muscular imbalance, differentiating disease from optical conditions, and frame adjustment."

Students finishing the four weeks' course will be awarded a diploma,— title not given.

McCormick Optical College (Chicago). The *Optical Journal* of Oct. 20, 1904, has this advertisement:

"I will for \$25.00, cash with order, give a correspondence optical course that will make the others sick-degree, Doctor of Ophthalmology."

Los Angeles School of Ophthalmology and Optometry (Cal.):

This school is presided over by a physician whose practice is advertised as limited to eye, ear, nose, throat, catarrh and fitting glasses. In from four to six weeks, a student can secure a certificate of competency, after acquiring a thorough and lasting knowledge of anatomy of the eye and its appendages, an ability to recognize diseased conditions, a perfect working knowledge of all the different forms of defective vision and muscular imbalance, a knowledge of different forms of lenses and kinds of instruments for examining the eye and detecting defective vision, etc.

A personal letter to the writer guarantees to make him qualified to pass optometry boards, as state examinations are only a matter of form, according to the letter.

The Rochester (N. Y.) School of Optometry:

Five circulars and one personal letter have reached the writer in reference to this school. The course is of about three months in length, and professes to teach elementary optics, anatomy and physiology of the eye, physiology of vision, errors of refraction, accommodation, anomalies of ocular muscles, asthenopia, retinoscopy, ophthalmology, lenses, mechanical optics and diseases of the eye. *The president of this college was in 1905 president of the Optical Society of the State of New York.*

Rowley Ophthalmological College (St. Louis, Mo.):

"The cause of 85% of all human ills is permanently removed by following our teachings. Tuition, \$25.00 for a short time, and students are guaranteed satisfaction or money refunded.

"When proficient, the degree of Doctor of Ophthalmology is conferred on them.

"We also teach an attendance course in optics, the price at present being \$10.00, but will soon be advanced."

The South Bend (Ind.) College of Optics:

Five calls have come to me to take this correspondence course, reduced from \$25.00 to \$7.50, and carrying the diploma and title of Opt. D. (Doctor of Optics).

Over ninety special subjects are taught (*e. g.*, anatomy and physiology of the eye) for the above named sum,—so that the seeker for knowledge or a diploma can acquire the same at an average outlay of about \$0.08 per subject, if you put no value on the title. Let title be worth \$5.00 and \$2.50 represent knowledge, and the subjects average about 3 cents apiece.

The college also has a \$4.00 course which graduates one as "Master of Ophthalmic Optics," on a 21 x 16-inch diploma.

The New York *Optical Journal* is advertised as saying:

"Those who get the course, at the prices quoted, will be lucky."

That many availed or were expected to avail themselves of this offer is indicated by a statement in the prospectus that

"We asked our engravers to name their lowest cash price on a thousand diplomas in one lot."

The Manhattan (N. Y.) School of Optics says:

"With the passing of recent laws wherein Optometry is recognized as a profession, a new and highly profitable occupation is opened to the retail pharmacist, jeweler, optician, etc."

The course is on lenses, light, the eye, optical instruments and correction for all defects.

In regard to the eye, they profess to instruct on anatomy, the acuteness of vision, visual defects and complications, hypermetropia, myopia, presbyopia, astigmatism, strabismus and muscular asthenopia, which seems a decidedly medical training for the druggist and jeweler.

You get all this in from ten to twelve weeks at the rate of three lessons a week.

You pay \$50.00 for the attendance and \$25.00 for the correspondence course and "this institution awards a handsomely engraved diploma to its graduates. This is an official document and a work of art."

Coming nearer home, we find recently the Kansas School of Optometry, located at Saco, Me., and teaching by correspondence:

"anatomy, physiology, hygiene, neurology, myology, diseases of the eyes, functional nervous diseases and their cure, refraction, the complete fogging system, shadow testing by the static dynamic and fogging methods and ophthalmoscopy."

"A complete course and diploma for only \$10.00. The greatest post-graduate course ever prepared for opticians."

The title in this case is Doctor of Optometry.

The school is now located in Boston in the same building where the president of the American Optical Association conducts his business, and on a glass door as you enter the school, this large painted sign stares you in the face:

"Eyestrain causes Headache. Stomach Trouble, Epileptic Fits, St. Vitus's Dance, Cross Eyes, Cataracts, Female Trouble. We can cure you with Glasses."

The Klein School of Optics (Boston):

This school advertises a course of ten weeks; furnishes a diploma and rectifies during that time any previous deficiency in education.

Gray's Anatomy, Foster's Physiology, Brockway's Physics, DeSchweinitz on the Eye, Haab's Atlas of Ophthalmoscopy, Prentice on Ophthalmic Lenses, are the books recommended for school use; while the student must also have a small dissecting case, ophthalmoscope and retinoscope. The subjects for study are anatomy, physiology, physics, ophthalmology and mechanical optics.

In anatomy you study osteology of the skull, structure of the orbits, Tenon's capsule, muscles, nerves, arteries, lymphatics, veins of eye and

orbit, the eyeball, its layers and refractive media, the optic nerve and the brain. In physiology you study the retina, optic nerve, chiasma, optic tract, corpora quadrigemina, corpora geniculata, pulvinar cuneus, etc.

In physiology you study strabismus, muscular errors, paralysis and spasms of accommodation, diseases of the eye, etc.

Is this medicine,—have Tufts and Harvard Medical Schools a hitherto unknown rival in the medical field?

The reader may say that these schools are not shown to have any official connection with so-called optometry,—have little or nothing to do with the case in question. In that event, since the opticians have no official college, we will connect them with schools which they must recognize.

The New York Institute of Optometry has for its president the oldest living ex-president of the American Optical Association, and he is also an ex-president of the State Optical Society of New York.

The secretary of this society is the present president of the Physiological Section of the American Optical Association. These men are listened to in stated addresses at the annual conventions of the American Optical Association, which would not be the case if their school did not have at least quasi-official recognition. They are of a faculty of seven, teaching physics, physiological optics, subjective and objective optometry, mechanical optics, anatomy, physiology, hygiene and optics. The course is of three months duration if the student works mornings and afternoons; of six months duration if he divides the day by working mornings for three months and afternoons for three months. They describe optometry as:

“One of the modern professions, and an evolution from the calling of the optician, combined with portions of the work formerly undertaken by the oculist.”

Let us note how they drive the oculist to the wall in three months!

In the first month, they teach arithmetic, algebra, trigonometry, anatomy, physiology, hygiene and kindred subjects.

They enlarge on these same subjects in the second month by taking eyes of animals for dissection, by showing innervation and enervation of eye muscles and *diseases of the internal and external eye that an optometrist should recognize*.

During the three months, they continue at mathematics, anatomy, physiology, hygiene and many other subjects.

They advertise “visits to wholesale stores and instruction given as to how to intelligently order goods.”

In the fourth, fifth and sixth months, one gets more of a business course,—first aid to the injured, salesmanship, professional advertising, and advt. writing, professional ethics, professional limitations of optometry, optometrical jurisprudence, professional book-keeping and office management, diet, physical development, etc.

It seems that the Institute reverses all accepted rules of education in that you dip into science and medicine during the first three months, but during the last three months get down to what is at the bottom of all this agitation,—cash and commercialism.

Two degrees are conferred by this school,—“Bachelor of Optics” and “Doctor of Optometrical Science.”

Is not this a representative educational institution of this optical brotherhood, when two of its officers are two active members and frequent speakers at the annual meetings of their American Association?

If this school represents the highest educational standard of so-called optometry, it seems not only to touch upon but to delve very deeply into medical mysteries.

The Northern Illinois College of Ophthalmology and Otology:

This school professes to teach the laws of optics, anatomy and physiology of the eye; dissection of human and animal eyes; to give practical work on operations and treatment of diseased conditions; to teach refraction, accommodation, convergence, trial case and use of mydriatics.

This is a correspondence course of six weeks in which students are given a thorough understanding of the anatomy of the eye and an ability “to recognize diseases and conditions which are often so annoying to the optician.” After completion of this correspondence course, those who receive the diploma are invited to spend a week at the school in Chicago,

“although this addition to the course is not at all necessary, as we thoroughly equip the graduate for his practical work before granting the degree of Doctor of Optics.”

You are taught by correspondence “anatomical construction of the eye, its development and diseases in a way that our students know the eye and its appendages as they know the alphabet.”

The course with degree of Doctor of Optics costs \$25.00. The school has a faculty of nine, five of whom are advertised as M.D.’s; while of the two lay members of the faculty, one is advertised as Lieutenant-Governor of the State of Illinois.

The curriculum embraces the principles of ophthalmology and otology, clinical and didactic ophthalmology and otology, anatomy and physiology of the eye and brain, *latent brain strain*, dioptrics, optical jurisprudence, refraction, optometry and psychology.

The remarks regarding this school were taken from their catalogues or prospectuses of past years.

Their 1908 advertisement has this day reached me, and part of their claims is:

“We dissect human eyes and the eyes of animals with our students, thus familiarizing them with all its normal and abnormal conditions and appearances. . . . Amblyopia, heterophoria and all other defects are minutely covered. Under this head are included pathological conditions of the eye

and its appendages, enabling the student to recognize at once all defects and to differentiate those requiring the attention of the oculist from those he may handle himself."

This is quoted in order to call attention to the extraordinary diagnostic skill which these students acquire in a few weeks, while the oculist, who has worked for years and years, can lay no claim to such unusual power.

The degrees conferred are: "Fellow of Optics," "Doctor of Optics," "Bachelor of Ophthalmology," "Master of Ophthalmology" and "Doctor of Ophthalmology." They also announce an additional, but unnamed honorary degree, and announce finally that they are not empowered to grant the degree of Doctor of Medicine. One of their diplomas is mentioned as being 28 x 28 inches in size. If the other four be of the same size, you can, or could, secure from this school over 25 square feet of diplomas, and do all this in an eighteen weeks' correspondence, or eight weeks' attendance course.

Query: Would 25 square feet of elegantly engraved diplomas be more expensive than decidedly expensive wall paper in a well appointed optical office?

This must be a representative optical college, for its president frequently appears at large optical gatherings as a speaker, and in 1906 read a stated paper at the annual meeting of the American Optical Association at Rochester, N. Y., while at Minneapolis, in 1905, the secretary of this same school read a paper at the annual meeting of this same American Optical Association on "Professional Integrity."

In addition to doing extraordinary things in an educational line, this man does even greater in a curing way. He is the president of an Eye Remedy Company which advertises such miracles as removal of floating spots from the interior of the eye, the clearing of the retina of congestion and the absorption of cataract by the use of his wonderful preparations.

Do the optical or optometry seekers for higher education claim as their own the high standing New York Institute and the North Western College of Ophthalmology and Otology which turn out these many-diploma, would-be-professional men in a few weeks,—or do they dare to disown optical diploma mills in general and these schools in particular, even though the heads of the latter schools be active men in their association?

Little of optics and much of medicine seems to be the rule with all of them; yet in unison they cry that they are not practising medicine, because they do not prescribe drugs.

An optical writer calls attention to the fact that "Optometry" has been in the Century Dictionary since 1901, which allows me to make an additional statement regarding this coined word. When at Milwaukee, in 1904, the president of the American Optical Association introduced the subject of its adoption:

"Private discussion had during the morning brought forth several pronunciations of

the word, but it was stated the proper and most common usage placed the accent on the second syllable. Thomas H. Russell, editor-in-chief of Webster's Imperial Dictionary Co., was next introduced, and explained that he had come to the convention to get the Association's correct pronunciation and definition of the word."

And so the child was born, named and defined to suit the claims of these mechanical workers. If 1901 were the date of birth, the baby would now be about seven years of age; but if the Century Dictionary of 1888 were perused, it would be found that "Optometry" was a breathing infant thus defined:

"1. The measurement of the range of vision.

"2. The measurement of the visual powers in general (including the acuteness of the perception of form, of light and of color,—eidoptometry, photoptometry and chromoptometry respectively), of the extent of the visual field (periop-tometry), of the accommodative and refractive states of the eye (dioptrics), and of the position and movements of the eyeball (ophthalmostatometry and ophthalmotropometry)."

Do these men do all that this definition embraces? For this word was then defined with no thought of latter-day optical societies bending words to suit their purposes, just as they say that they simply bend rays of light in their "professional" work.

Whether this bill fail or succeed, the optician partly accomplishes his purpose,—to bring the name "Optometrist" before the people, to advertise it, and then to charge for his "professional" service as well as for the glasses he sells. One of their prominent men acknowledges this to be true when he says that his fellow workers do not now dare put "Optometrist" on their advertising signs,—but that they will be prepared to do so when they shall have educated the public by legislative enactment to a knowledge of what the word means.

The two words (optician and optometrist) are absolutely convertible, so that your writer clings to the former and ignores (as all physicians should) the latter. And this word "optician" is decidedly elastic, being susceptible of three meanings:

If he be (1) "One skilled in the science of optics," there are but few of them who could qualify; if he be (2) "One who makes optical glasses and instruments," few again could qualify; if he be (3) "One who sells optical goods and instruments," all, or nearly all, of them could qualify.

In such event, he is on a par with the butcher, baker and grocer, who sell their wares as best they can and do not seek to become professionalized by word of law.

This latter object is their desired "education," as is proved by the advertised fact that

"Secretaries of state societies are notified that the following pieces of literature, designed to build up and strengthen the local society and aid in securing state legislation,

may be had free of charge, in lots of from one to five hundred, upon application to Secretary —, at Kansas City, Mo."

Then follows a list of eight pamphlets, number four of which is headed, "Organization, Legislation, Education. Without organization you cannot secure legislation. Without legislation you cannot afford education."

That in a few words is their case, — professionalize them by law and they can then "afford education." If they do work better than the physician, as they claim, why do they not peruse books or found a school before they have recourse to law?

Ridicule their claims, if you will, yet the fact remains that their organized and persistent effort, coupled with the apathy of the medical profession, has caused a so-called optometry law to be enacted and placed upon the statute books of Indiana, California, Tennessee, Nebraska, Idaho, Utah, Montana, Minnesota, Oregon, North Dakota, Arizona and New Mexico.

They will come with their claims for recognition before the Committee on Public Health of the Massachusetts Legislature on the 20th inst., when it is to be hoped that the usual reserve of physicians will give way to an active working interest in what vitally concerns them, — the protection of the public and the preservation of the professional and educational qualifications which our state has wisely enacted and seeks wisely to enforce.

Massachusetts General Hospital.

CLINICAL MEETING OF THE MEDICAL BOARD, JAN. 10, 1908.

I. ACUTE INTESTINAL OBSTRUCTION, DUE TO TABES MESENTERICA.

II. INTRA-ABDOMINAL CURETTAGE OF THE UTERINE CAVITY.

BY F. B. HARRINGTON, M.D.

I. A BOY nine years old, of previous good health, was seized with acute abdominal pain and vomiting. These symptoms continued for two days with marked distention, when he was brought to the hospital. The diagnosis was intestinal obstruction. On opening the abdomen a point in the small intestine was found adherent to a mass as large as a small orange, at the root of the mesentery. An inch above the adhesion there was a kink in the bowel which caused the obstruction. The mass was made up of hard glands which indicated an old inflammatory process undoubtedly tubercular. On separating the bowel a small opening was shown to exist between the gland mass and the interior of the gut. It indicated that suppuration had taken place with discharge into the bowel. This opening was closed. The condition of the bowel at the kink was sufficiently good to justify a belief that it would take care of itself.

The bowels were tapped and the distension relieved. The abdomen was closed without drainage. There was relief of symptoms for a week, when pain, vomiting and distension returned. Nine days after the first operation the abdomen was opened again. There was great distension, the intestines were studded with miliary tubercles and another portion of the bowel was

found adherent to the same glandular mass. Two Mixer tubes were inserted into the small intestine at considerable interval. The bowels were got back into the abdomen with the greatest difficulty. The parents were notified that there was no hope of the child's recovery. He did recover, however. One of the tubes came out on the seventh day, the other on the twelfth day. The fecal discharge gradually ceased from both openings with the passage of feces in the normal way.

The outlook for this boy is still not good, and it will be necessary to watch him with great care. If there is a recurrence of the symptoms an attempt must be made to remove this tubercular mass which has caused the trouble, but there is sure to be great difficulty in draining this area without setting up a general peritonitis or causing obstruction of the bowels.

II. In the *Johns Hopkins Bulletin* of May, 1906, Russell reports 32 cases of hysterotomy and speaks of the value of this operation as a means of diagnosis and treatment. I wish to call attention to this operation which is a safe and satisfactory one. It has been performed by several of the hospital surgeons in the past but it has not received the attention it deserves. In the last fourteen months I have had nine cases. All have made rapid and satisfactory convalescence. The reaction has been slight, one case only reaching a temperature of 101° and that but for a single day.

Three of the patients had been previously curetted by the vagina for metrorrhagia which had recurred. Four had profuse endometrial discharge and conditions which called for opening the abdomen. Two had intra-uterine polypi.

The method used is to incise the anterior wall of the uterus in the middle line down to the cavity. Double hooks are then used to retract the incised wall. The incision extends from the fundus to the internal os. The bleeding is slight. This gives a clear view of the cavity of the uterus and makes it possible to curette thoroughly into the horns of the uterus. In one case the operation was done immediately after a careful curetting, by the vaginal route. The opening of the uterus from above showed the imperfection of vaginal curetting. Much hyperplastic mucous membrane had escaped the curette and the membrane in the horns had not been touched.

The uterus is closed by two layers of catgut and the peritoneum of the uterus by fine silk sutures.

The approximation of the peritoneum is the great safeguard of the general cavity. Drainage through the cervix into the vagina should be insured by dilating the canal if necessary.

FOUR CASES OF LEAD POISONING.

BY F. C. SHATTUCK, M.D.

CASE I. A painter, thirty years old, single, admitted the 25th day of November. Been feeling poorly for six weeks, but quit work two weeks ago on account of weakness in legs and back. "Legs won't hold him up; can't go upstairs; joints are lifeless." Has had some grinding pain in abdomen, and kept bowels open with salts for the past two weeks. No paralysis in hands or arms, but legs weak. No knee jerks even on reinforcement. No lead line. Lead was found in