"For to what gatherings of the citizens
Will you resort, or to what festivals,
Whence you will not, in place of holiday,
Come home in tears."

Truly a sublime spectacle, tragic laden, is that wherein for ages an army of devoted men has suffered and striven, lost and won, that life might be spared to human kind. Napoleon, Alexander and Caesar killed men by the thousands and we pass on their gloried names to our children's children. Edward Jenner, Lister and Pasteur have saved men by the thousands, and yet what schoolboy, nay, what man of average education, knows aught of them and what their gifts to humanity have been?

In the cities of London and Westminster and the outlying metropolitan parishes in Southwark and the north of London, for the year 1670, there were 1,465 deaths from "flox" and smallpox, and 3,272 from consumption. To-day, smallpox is a rarity amongst us, and consumption is being fought from every side. Imagine, if you can, what these appalling death lists must have meant, in human sorrow and desolate tears, and then tell me whether the story of the lives and labors of the men who have lessened this frightful mortality are of equal interest with the stories of Antigone, of Hamlet and Macbeth.

Although his studies in smallpox and cowpox required of Jenner the greatest accuracy and highest powers of concrete observation, there was much of the poet and the mystic in this country physician of Gloucestershire. He writes, "While the vaccine discovery was progressive, the joy I felt at the prospect before me of being the instrument destined to take away from the world one of its greatest calamities, blended with the fond hope of enjoying independence and domestic peace and happiness, was often so excessive that, in pursuing my favorite subject among the meadows, I have sometimes found myself in a kind of reverie. It is pleasant for me to recollect that these reflexions always ended in devout acknowledgments to that being from whom this and all other mercies flow." And yet, I have heard it said that the study of medicine makes men irreverent!

I cannot account for this belief except upon the assumption that those responsible for it had never looked deeply into the souls of the great masters of medicine. Was it not Pasteur who said, "The more I know, the more nearly does my faith approach that of the Breton peasant. Could I but know it all, my faith would doubtless equal even that of the Breton peasant woman." And were it necessary, one could mention numbers of illustrious physicians who were not only reverent, but some of whom were even holy men. But why should I say more to illustrate what is obvious? Intellect, passion, common sense, practicality, adventure, comedy and tragedy, all of these, and much more beside, may be found in the history of medicine. But, like the lilies of the field, they lie with all their beauties quite unknown, until some kindly pilgrim sets out to seek them.

WHY THE "OPTOMETRY" LEGISLATION SHOULD NOT PASS.

A STATEMENT OF THE REASON WHY THIS LEGISLATION IS OPPOSED BY THE AMERICAN MEDICAL ASSOCIATION, THE MASSACHUSETTS MEDICAL AND THE BOSTON AND MASSACHUSETTS HOMOEOPATHIC SOCIETIES.

BY GEORGE S. DERBY, M.D., AND ROBERT G. LORING, M.D., BOSTON.

AGAIN this year certain opticians have introduced a bill at the State House asking for legislation to provide a State Board of Registration for opticians, or rather "optometrists."

Their argument, in brief, is as follows: That, for the examination of the eye, and for the fitting of glasses, a medical education is not necessary; that there are too few oculists to care for all the people, and many must go to the opticians; that at present many opticians are incompetent and impose on the public, and that they should be prevented by law from doing so; that they, the petitioners, are trained and are as competent as the medical eye specialists to prescribe glasses; that the majority of patients need only glasses and that the "optometrist" is capable of recognizing the diseased eye when he sees it and will refer such cases to the oculist.

Replying to these claims, the medical profession states emphatically

That: This is a question of lowering the medical standards in Massachusetts.

That: A medical training is indispensable for a proper treatment of this organ, on account of the close relationship between the eye and the other parts of the body, and between eye symptoms, like headache and poor sight, and general constitutional conditions.

That: If the opticians wish to enter the domain of medicine they should and may, if able, comply with the requirements of the Massachusetts State Law and qualify before the State Board of Medical Registration.

That: There is no need for this special class of imperfectly trained practitioners. That especially in a thickly settled state like Massachusetts, with her abundant free hospitals and high medical standards, the services of medically trained eye specialists are within the reach of every person, whether rich or poor.

That: It is universally recognized by medical authorities that, *always in children* and often in adults, the use of a drug is indispensable for the proper examination of the eye. Such a drug may only be used according to law by those who have qualified in medicine. As Governor Deneen pointed out in vetoing similar optometry legislation in Illinois, "The state should not indorse a person as capable of performing a function and at the same time withhold from him the most essential element for its successful execution."

That: The claim of the "optometrist" not to trespass on the field of medicine is false and not consistent with common sense or the published aims of optical journals and societies. The "optometrist," to recognize a diseased eye and refer it to the oculist, must himself be trained in medicine. Though the "optometrist" claims

he has nothing to do with medicine, the so-called optometry schools advertise courses in anatomy, physiology and pathology of the eye, and the meetings of state and national opticians' associations are filled with papers on medical matters.

In brief, this sought-for "optometry" legislation is believed by the medical profession to be a covert attempt on the part of men without suitable education or training and without passing the tests demanded of other aspirants to medical practice to enter the domain of medicine by a short cut under a new and high-sounding title, and with the prestige of a license from the Commonwealth of Massachusetts.

ARGUMENT IN DETAIL.

The name. — The "optometrist" is an optician. The name is of recent origin and is not familiar to the public, and, if he needs registration, it should be as an optician and not under a new name that the public may think carries more professional weight than the ordinary M.D.

Education. — "Optometrists" have no proper schools, or at least the schools which exist have not the official recognition of their optical societies. An overwhelming majority of optometry or optical schools are correspondence courses of a few weeks or months, giving a degree in which "Doctor" figures prominently. Prices, \$5 to \$25, which includes handsomely engraved diploma. They ask for recognition and protection such as has been accorded pharmacists, dentists and physicians. But these other professions have schools and had them long before regulation and registration went into effect. They ask for legislation to get education, where every profession heretofore has first secured the education.

They claim that a medical education is not necessary since they merely bend the rays of light before they enter the eye, and because refraction is not taught in medical schools, and because most physicians do not practice it. As is well known, refraction is, and always has been, primarily in the hands of the medical profession. It is taught in both the Harvard and Tufts Medical Schools, and by many doctors in connection with their work in the eye hospitals. Most physicians do not treat the eye or fit glasses any more than most physicians practice the other specialties, such as nose and throat, major surgery, orthopedics or skin diseases. To practice any specialty competently, additional work in the post-graduate departments of the medical school and in the hospital is necessary beyond the regular medical course.

Their "optometry" is but a subdivision of ophthalmology, and the latter, in turn, a subdivision of general medicine. Why should the "optometrists" not qualify before the State Board of Medical Registration, as many osteopaths have done? Should the state divide the science of medicine in many parts and establish separate boards of examination and registration for each part?

Invading the field of medicine. — While the ad-

vocates of this legislation claim that they do not intend to trespass on the domain of medicine, proofs may be found that their real purpose is to let down the bars to medical practice.¹

In a pamphlet entitled "Massachusetts Needs an Optometry Law," a recent president of their national optical association claims that fitting glasses is a mechanical process and not a matter requiring a knowledge of medicine, yet he advertises to examine the eye internally, as well as externally, to note whether or not disease exists and to send physicians a statement as to eye conditions. Again, professing to be concerned only with fitting glasses to the eye, they say:

"The competent optometrist devoting all his time and attention to the eye becomes, of course, an expert. As he examines the eye he is able to tell whether or not it is in a normal condition. Certain diseases of the eye have their symptoms just the same as in the case of any other human ailment."

Without a medical training, and with nothing but his crude, untrained observation, how will the optometrist be able to tell the presence of deep-seated intra-ocular disease? Will not such cases frequently be treated with glasses till the time for other successful treatment has passed, never to return? How shall he know the profound relation existing between ocular fatigue and grave neurological disturbances? How can he distinguish the headache from eyestrain from the headache due to anemia, brain disease, kidney disease, uremia, diabetes or neurasthenia?

Will the average optometrist devote all his time and attention to the eye? The letterhead of the secretary of the State Board of Examiners in Optometry for 1908, in North Dakota, bears the following legend: "Pianos, Organs, Phonographs, Sewing-Machines, Watches, Clocks, Jewelry, Silverware, Hand-Painted China." Shall such men be licensed in this state to decide matters pertaining to the public health, till now in the hands of the medical profession?

They say a medical education would be for them a waste of time, yet, in the *Optical Journal* of June 13, 1907, pp. 808 and 809, H. J. Cook, then president of the American Optical Association, made the following statement:

"Optometry is rapidly becoming an advanced profession. Its practice involves the specializing because of the wide range of knowledge essential to its successful practice. Mathematics and mechanical ability, coupled with good judgment, training in physics, anatomy of the eye, nerve reflexes and sufficient study to recognize diseases and refer them to the specialist for treatment are but a part of the mental equipment."

Does this invade the domain of medicine?

In the *Optical Journal* of July 15, 1909, under the heading, "The Optometrist of the Future. Is Refraction to be the Limit of our Sphere of Usefulness?" R. T. Hudson, before the Tennessee Optical Society, says:

¹ On Oct. 20, 1908, the full bench of the Supreme Court of Massachusetts handed down a decision to the effect that the practice of medicine is not limited to the administration of drugs or other agents; or, in other words, that, within the meaning of the statutes, Sect. 8, Chap. 76, Revised Statutes, one can practice medicine without giving drugs or any other substance.

"The greater part of the big book of ophthalmology is eye diseases and their reflexes. Here is another field to exploit, and we propose to invade it, and not only invade it, but capture it. Nor do we intend to stop here. There is still another field to invade, and it shall be ours, namely, ophthalmic surgery."

Having been licensed to fit glasses, they evidently propose to treat disease and perform operations. Is this invading the domain of medicine?

They deny that their work is medical, yet their schools, such as they are, advertise courses on anatomy, physiology and diseases of the eye, and optical journals are filled with papers and discussion of purely medical subjects.

QUESTIONS ASKED IN OPTOMETRY EXAMINATIONS IN OTHER STATES. DOES THIS INVADE THE DOMAIN OF MEDICINE?

(*Verbatim et literatim.*)

"Explain the following: Aniridia, cyclophoria, daeryoma, cruecleation, epicanthus, epilation, earuncle, myosis, mydriasis, cycloplegia, chromatism, nyctalopia, keratitis, leucoma, hordeolum, anisometropia. Describe the dilator iris, its function and nerves. Name the principal arteries of the eye. State shortly what you know of cataract diagnosis, its varieties, cause and methods of removal. A patient with cataract frequently sees better at dusk than in bright light. Why?" [California.]

"What is the conjunctiva? Name and describe the parts constituting the lachrymal apparatus. What muscles rotate the eyeball on its antero-posterior axes? What artery supplies the eye? What muscles are supplied by the motor oculi or third nerve? What is the blepharitis marginalis? Describe the difference between hordeolum and chalazion. Describe simple corneal ulcer, giving etiology and prognosis. Describe cataract in general and one kind or more in particular. Define the following words: Ptosis, exophthalmos, muscae volitantes, opacities, trachoma. Name the layers of the cornea. Describe and locate the optic disk. What muscles are supplied by the third nerve; fourth nerve; sixth nerve? Describe glaucoma. What are the subjective symptoms? What are the objective symptoms? Describe blepharitis. What optical errors does it indicate? Describe embyopia potatorum. How does the retina appear in a bad case of albuminuria? Define the following words: Photophobia, polyopia, aphakia, canthus, atrophy, retinitis, staphyloma, nystagmus, palpebra, pterygium." [North Dakota.]

"Name the humors of the eye. Describe the orbits; conjunctiva. Name the different coats of the eye. What is pterygium? trachoma? Name the internal and external muscles of the eye. How would you detect cataract? What is it? What is nystagmus? anisometropia? How many layers has the retina? About what is the antero-posterior diameter of an eye? Of what does the lachrymal apparatus consist? In what way do the tears escape from the conjunctival sac? And with what cavities is this duct continuous? What is the character of the retina and its relations to the optic nerve? What is iridotomy? kersatitis?" [Utah.]

WHY GOVERNOR DENEEN VETOED SIMILAR LEGISLATION IN ILLINOIS.

"Vetoing similar legislation in Illinois, Governor Dineen said:

"I am informed by physicians with whom I have consulted regarding this bill that there is a general consensus among medical men that the eyes of young

persons cannot be refracted accurately without the previous use of medicines to suspend the accommodation.

"Such treatment enables the oculist to determine accurately errors of refraction. This bill does not permit optometrists to use such medicines. The methods practiced by optometrists, therefore, are, to a greater or less extent, experimental.

"A doctor who treats the eye is called a specialist, as distinguished from a person uneducated in medicine who may learn the use of a set of trial lenses in a few weeks and call himself an optometrist.

"An oculist may use a drug to suspend the accommodation because he is a graduate of medicine, as a foundation for his special studies relative to the eye. An optometrist may not use such drug, nor any other medicine, nor treat the eye, because he is not licensed by the state of Illinois to practice medicine. If, therefore, as provided by this bill, the use of medicine is not to be permitted, it goes without saying that the state should not endorse a person as capable of performing a function and at the same time withhold from him the most essential element for its successful execution. (Endorsed by the Committee of State and National Legislation of The Massachusetts Medical Society.)

Clinical Department.

EXTREME TALIPES EQUINUS.

BY W. R. MAC AUSLAND, M.D., BOSTON,

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AND

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Assistant to the Orthopedic Surgeon, Carney Hospital, Boston.

This case is reported, not only because of the variety of its extreme deformity, but also because of the excellent result achieved by the use of a conservative operative measure — manipulation. At first sight it seemed that a bone operation would be necessary. The age of the deformity and the degree of plantar flexion of the toes suggested, however, that such an operation would greatly endanger the nutrition of the foot, and manipulation therefore, was done.

The case is also interesting in that power, returning to the anterior group of muscles after correction of deformity, is unusual.

CASE. R. R., female, age twenty-two, single. Entered Carney Hospital Orthopedic Department Sept. 3, 1908.

Complaint. — Deformity of left foot.

Duration. — From infancy

Family history. — Not important.

Present illness. — Patient gave an indefinite history of some sickness in early childhood, of which very little was known. Patient dated trouble from this illness.

Physical examination. — A well-developed and nourished girl. Walked with a decided limp, suggesting an old infantile paralysis. Wore same size shoe on both feet, but shoe on left foot was very loose. (See Photo 1.) This left foot was in position of extreme equinovarus, so that on standing the dorsum of foot bore the body on the floor. A large callus was situated over this region. The tendo Achilles and the plantar fascia were markedly contracted, the deformed foot reminding one of a seal's flipper. (Photo 2.) The foot could not be brought to within 30 in. of the line of the tibia. Legs were of equal length; atrophy of left thigh was 2 cm.;