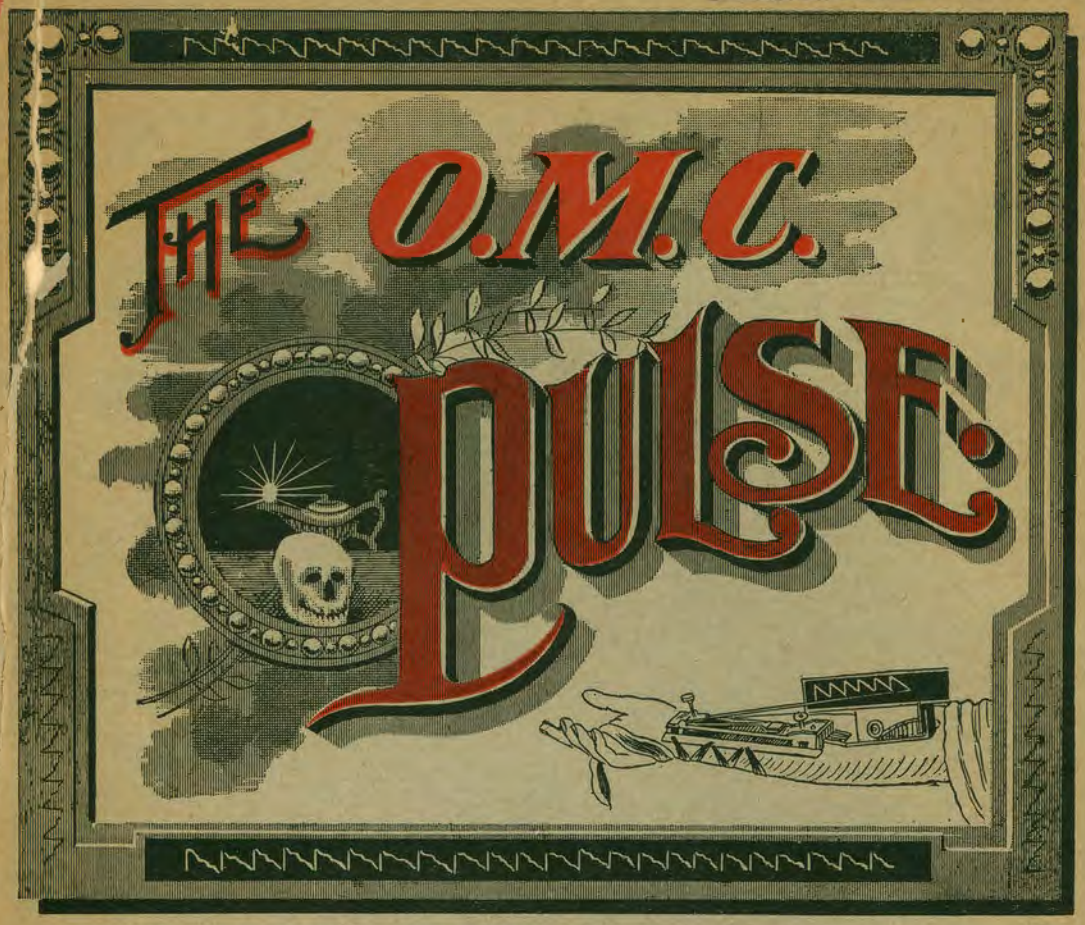
3-1902

OMC Pulse, Volume 05, No. 6, 1902

Omaha Medical College



OFFICIAL JOURNAL OF THE OMAHA MEDICAL COLLEGE, MEDICAL DEPARTMENT UNIVERSITY OF OMAHA, OMAHA, NEB.

Vol. 5. MARCH, 1902. No. 6.

CONTENTS.

Why do we Wear Glasses?—H. B. LEMERE..147
An Improvement on the Hypobromite Method of Estimating Urea. — G. H. Rathbun and Max Koetter.....150
Alumni Notes.....150
Clinical Department—P. E. JAMES, '02.....155
Editorial.....158
Class Notes.....160

HAVEAHAWES ? ?

STEPHENS & SMITH

SOLE AGENTS
HAWE'S HATS

Haveahawes

Are THE Furnishers and Hatters. If it's here it's right.

FOR MEN ONLY.

We Fill Mail Orders so Quickly You Really Enjoy Ordering.

Opposite the Post Office, OMAHA, NEB.

Clark's Bowling Alleys.

1313-15 Harney St.
OMAHA.

SIX REGULATION

Biggest Brightest Best

Latest Styles. Terms Moderate.

A. KODYM

MERCHANT TAILOR

Suits made to order from $18 upward.
Trousers from $4 up. Repairing,
Cleaning and Pressing
Neatly done.

1510 Harney St. OMAHA.

Gold, Silver and Nickel Plating

SURGICAL INSTRUMENTS and any Metallic Article
Re-plated as New or No Charge

Tel. 2535 OMAHA PLATING CO. BEE BLDG.

A full line of Genuine Briar Pipes, from 25c up.
Genuine Meerschaum Pipes Away Down. Canes.

Established 1892.

CHAS. A. TRACY,

Phone 1503. Brown Blk., 1523 Douglas.

ORNAMENTS

For the dresser would make a nice Easter gift. A manicure piece, Talcom powder box, vaseline jar, tooth powder box, tooth brush holder, perfume bottle, pin tray, bud holder. We are showing a nice line of these goods, Spend a few minutes at our store.

Look for the name **LINDSAY** The Jeweler

1516 Douglas St. Omaha, Nebraska.

Whinnery & Wallace, DENTISTS

Phone 484

212 Brown Block. - OMAHA, NEBRASKA.

Omaha Medical College.

Corner 12th and Pacific Streets,
OMAHA, NEB.

MEDICAL DEPARTMENT UNIVERSITY OF OMAHA.

Four years graded course comprising all branches of medicine and surgery. Credentials issued to students by other medical schools in good standing permit of admission to advanced work. Graduates of universities and other colleges of equal requirements are credited with one year's work.

Entrance examination required of those not possessing literary credentials indicating a good English education.

Clinical Instruction in the Out-door Dispensary, the Douglas County, Omaha, Clarkson and Immanuel Hospitals.

DEPARTMENT OF INTERNAL MEDICINE: Wellington S. Gibbs, M. D., Wilson O. Bridges, M. D., H. M. McClanahan, M. D., William F. Milroy, M. D., H. S. Lyman, M. D., S. R. Towne, M. D.
DEPARTMENT OF SURGERY: August F. Jonas, M. D., B. B. Davis, M. D., Donald Macrae, M. D., A. W. Edmiston, M. D., Paul Ludington, M. D.
DEPARTMENT OF MATERIA MEDICA AND THERAPEUTICS: William H. Christie, M. D., N. J. Rice, M. D., Paul H. Koerber, M. D.
DEPARTMENT OF OBSTETRICS: A. B. Somers, M. D., W. H. Hostetter, M. D.
DEPARTMENT OF ANATOMY: Donald Macrae, M. D., Wm. H. Ramsey, M, D., Paul Ludington, M. D., Jas. Tische, M. D.
DEPARTMENT OF PHYSIOLOGY: Vernon L. Treynor. M. D.
DEPARTMENT OF CHEMISTRY: A. C. Stokes, M, S., M. D.
DEPARTMENT OF MEDICAL JURISPRUDENCE: Judge Wm. Keysor.
DEPARTMENT OF GYNECOLOGY: Ewing Brown, M. D.
DEPARTMENT OF DISEASES OF THE EYE AND EAR: Harold Gifford, M. D., G. H. Bicknell, M. D.
DEPARTMENT OF LARNYCOLOGY AND RHINOLOGY: F. S. Owen, M. D.
DEPARTMENT OF DERMATOLOGY: O. S. Hoffman, M. D.
DEPARTMENT OF NERVOUS AND MENTAL DISEASES: Hamilton B. Lowry, M. D., Richard C. Moore, M. D., S. M. Aikin, M. D.
DEPARTMENT OF PATHOLOGY, HISTOLOGY AND BACTERRIOLOGY: W. K. Yeakel, M. D.
DEPARTMENT OF BIOLOGY AND EMBRYOLOGY: Alf. O. Peterson, M. D.

For particulars and further information apply to

EWING BROWN, M. D., Secretary,

1026 Park Avenue Omaha.

HENRY B. LEMERE, M. D.

The O. M. C. Pulse.

VOLUME V. MARCH, 1902. NUMBER 6.

WHY DO WE WEAR GLASSES?

BY HENRY B. LEMERE, M. D.

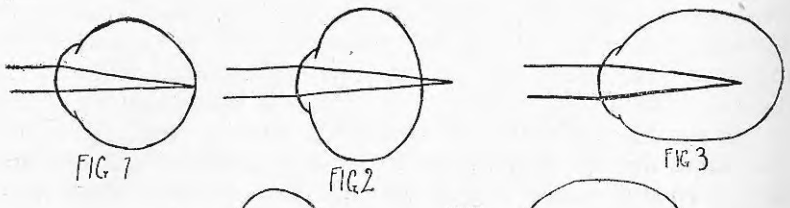
That this question needs to be answered intelligently and also in an intelligible way is very clear from the prblems propounded and the prejudices exposed by otherwise reasonable beings. The cause is certainly not to be found in cosmetics, and only the neatness with which the spectacle is made in this country saves this plea from absolute absurdity. Before answering the question in hand, I shall ask your indulgence while we go over a few facts, dry perhaps, but necessary to an understanding of this subject.

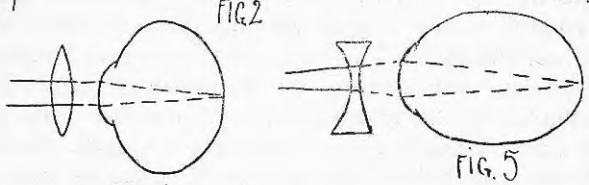
I shall first describe briefly a few of the terms used in refraction and then in a small degree touch on the symptoms resulting from the refractive errors of the eye. In the treatment of this subject I shall take a middle course and so on the one hand avoid the elaboration of those elementary laws of physics which are easy of reference, and on the other omit the technicality generally incorporated in a treatise on this subject.

Complete relaxation of accommodative effort for distant vision, tgether with increase of the visual acuity, are the results the oculist aims to attain in the fitting of glasses. The perfect or emmetropic eye is under no strain of accomodation for distant vision. The far-sighted or hyperopic eye will see clearly distant objects, provided the effort of the ciliary muscle can make up its deficiencies. The near-sighted or myopic eye *cannot* see distant objects clearly without the aid of a lens. The eye with an irregular cornea or the astigmatic eye has imperfect vision for both distance and near when uncorrected. These terms will now be used in this article in nominating different forms of eyes, viz., emmetropic, or perfect eye, hyperopic, or far-sighted, myopic, or near-sighted, and astigmatic, or the eye of irregular refraction.

In the following examples we will suppose the action of the ciliary muscle in complete abeyance and no power of accommodation exercised. Rays of light coming from the distance and to all intents parallel are in an eye of perfect shape or an em-

metropic eye brought to a focus on the retina . Fig. 1. If, however, the eye is not of perfect shape, it may be a shorter (Fig 2) or a longer distance from the cornea to the macular (Fig. 3). The focus of the parallel rays will then fall in front of or behind the retina respectively, and we here have the hyperopic or myopic eye.





These are the simple forms of error. For their correction it is easy to see (Figs. 4 and 5) that a properly selected spherical concave or convex lens will so affect the parallel rays that before they reach the eye they may be made so convergent or divergent that the refractive power of the eye will bring them t oa focus on the retina.

In the conditions above described, each cornea has been the section of a perfect sphere. But eyes are not always so regular and sometimes the curvature of the cornea is greater in one direction than in the other and is really a section of an ovoid. This is the astigmatic eye. It is manifestly impossible for such an eye to focus a perfect image on the retina and this is true even though we may allow the ciliary muscle to aid. In order to give any relief to this eye the error must be corrected by means of a cylindrical lens.

We have, therefore, considered the emmetropic eye which is naturally focussed for distant vision and sees in the distance without any effort, the hyperopic eye which sees clearly in the distance, but only by exerting the ciliary muscle, the myopic eye which cannot see clearly in the distance without the aid of a lens, and the astigmatic eye which tries but fails to see clearly distant objects.

It is very hard to estimate the amount of strain on the ciliary muscle occasioned in these different defects. It is quite certain, however, that the constant strain of astigmatism is the most

severe. Even slight degrees of this error occasion sometimes the greatest distress. Next in importance with regard to the symptomatology comes hypermotropia. This trouble generally produces symptoms in proportion to the degree of error existing. In high degrees of hypermetropia, however, the ciliary muscle may strike work, or rather the patient refuses to attempt to gain clear vision. The two factors to be considered in the fitting of glasses are (1) the desire and consequent efforts of the patient to obtain clear vision, and (2) the amount and kind of defects in the eye. The desire of the patient for visual acuity and his efforts to attain it are not always recognized as such by him. Take, for instance, a nervous disposition with astigmatism, who may think he sees clearly, never having perhaps compared his vision with that of a perfect eye. This man, unconsciously noting that the exercise of the ciliary muscle for the moment gives his a clearer view, submits this muscle to constant nervous impulses, now focusing one meridian and now the other until he gives way under the nervous strain, and lies down, closes his eyes and wonders why mental exertion is so painful, why his head aches, and if it all comes from indigestion—all the time unconscious that the nervous storm center is in his eyes.

Thus one of our factors being ruled out, the patient may suffer very little pain, though, of course, the inconvenience of such imperfect vision as he will then have will be very great. The myopic eye as a rule causes few symptoms in the form of headaches, the correction is generally called for by the patient in order that he may have more useful vision when outside. High degrees of myopia if uncorrected tend to increase in degree and the visual acuity diminishes till finally useful vision is almost nil. I have not attempted here to treat of the effects of close work on the different eyes. I will merely call to your attention the fact that in many cases we have such effects added to our trouble fr distant vision.

The symptoms resultant from refractive errors are mainly nervous. I mean by this, pain, headache, dizziness, weariness and lassitude; in contrast to those of diminution of visual acuity. Like most nervous symptoms there is often a want of definition as to their location and quality. The headache may be frontal or occipital, or, as the patient says, all over. The pain may be described as deep in the ball of the eye or may be only a slight smarting. The dizziness may be trifling or so severe as to almost amount to epilepsy. The symptoms may take the form of migrain or hemicrania and sometimes are so intol-

erable that the patient is frequently incapacitated from doing any work whatever.

And now we are able to announce the problem—why do we wear glasses? and the reasons come easily: (1) To relieve the above symptoms; (2) to increase the visual acuity; (3) to prevent the degeneration of the globe due to eye strain and finally (4) by the above results to increase the working capacity of the individual. These are the most forcible reasons. Others there are, however, which do not come within the scope of this article.

I will close by emphasizing most strongly the third reason enumerated above, in which it is stated that severe eye strain predisposes to diseases of the globe. In this respect I would call your attention to two significant facts; first, that refractive errors, especially among the city people, are more carefully corrected here than in other countries; and, second, in the same class of people the percentage of senile cataract is very low. I trust then that if I have removed to some extent the awful mystery of the names of refractive errors, that with the familiarity there will be no contempt when you have these troubles in evidence.

309 Paxton Block.

ALUMNI NOTES.

Dr. Beatty, class 1897, of Neligh, Nebraska, was a welcome caller February 26, 1897. He came with Dr. B. B. Davis and was introduced to the students of his alma mater. In his address he inquired concerning the Senior Medical Society. How about it?

Dr. Eugene Smith of Rock Springs, Wyoming, visited with friends Wednesday, March 5, 1902.

Dr. Putnam, Lake Park, Iowa, class of 1897, visited the O. M. C. March 6.

Dr. Robertson, class 1901, visited college Friday, March 7. Dr. Robertson is located at Crescent, Iowa.

AN IMPROVEMENT ON THE HYPOBROMITE METHOD OF ESTIMATING UREA.

BY G. H. RATHBUN AND MAX KOETTER.

The essential points in the construction of a hypobromite ureometer for clinical purposes, are: 1, accuracy; 2, convenience, and 3, economy. The ideal apparatus must be accurate; it must be constructed in the simplest possible manner compatible with accuracy; it must require no dexterity in performing the test, so that the trained hand and the untrained may perform

it with equal accuracy; it must not occupy too much space, nor should the preparation of the solution be difficult or disagreeable in any way; there should be no difficulty in calculating the result, and, lastly, a superfluous amount of the reagent should not be necessary, nor should the apparatus, itself, be too expensive.

Many forms of apparatus have been in use, and are in use at the present time, and the large number is but evidence that none are entirely satisfactory. Some have advantages over others, but none combines all the advantages. Of the different forms of hypobromite apparatus may be mentioned those of Dupre, Russell and West, Smith, Squibb, and Doremus. It is our purpose in this article, simply to call attention to the advantages and disadvantages of each. For a more complete description, the reader is referred to the various works on Physiological Chemistry.

All these tests depend on the fact that urea, in the presence of an oxidizing agent, in this case, sodium hypobromite, is broken up into nitrogen, carbon dioxide and water. An excess of sodium hydroxide is added to combine with the carbon dioxide, the nitrogen, only, being set free. The reaction is as follows:

$$CON_2H_4 + 3NaBrO + 2NaOH = 3NaBr +$$

urea sodium hypobromite sodium hydroxide sodium bromide

$$3H_2O + N_2CO_3 + N_2$$

water sodium carbonate nitrogen

The volume of nitrogen is measured and from it the amount of urea is calculated. When absolute accuracy is required, corrections may be made for temperature, pressure and tension of aqueous vapor. Ordinarily, this is not necessary, and some of the forms of apparatus are so graduated that the amount of urea may be read off directly. In some, the gas, itself, is measured; in others, it is allowed to displace a certain amount of liquid which is measured.

We see from equation (1), that to act on one molecule of urea, it requires three molecules of sodium hypobromite and two molecules of sodium hydroxide. The reagent is made by mixing bromine and sodium hydroxide, the reaction taking place as follows:

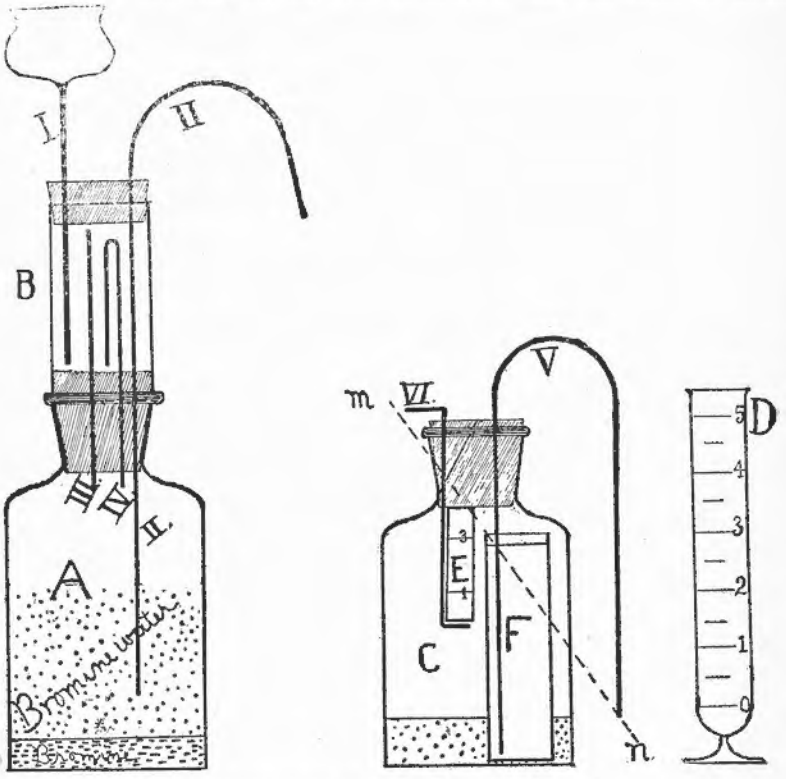
$$3Br_2 + 8NaOH = 3NaBr +$$

bromine sodium hydroxide sodium bromide

$$3NaBrO + 2NaOH + H_2O$$

sodium hypobromite

It will be seen from equation (2) that it requires 6 atoms of bromine, and 8 molecules of sodium hydroxide, to produce as much of the reagent as will decompose one molecule of urea.



The atomic weight of bromine is 80.
The molecular weight of NaOH is 40.
The molecular weight of urea is 60.
6 atoms of Bromine weigh 480.
8 molecules of NaOH weigh 320.
1 molecule of urea weighs 60.

We have then, the ratio 480:320:60, which simplified, is 24:16:3, in other words, to decompose 3 centigrams of urea, it requires 24 cgm. of bromine and 16 cgm. of NaOH.

All the forms of apparatus devised up to the present time, use an enormous excess of the reagent. Suppose the sample of urine to contain as high as 6 per cent of urea, if one c. c. of urine is taken, it would require 48 cgm. of Br. and 32 cgm. of NaOH. If 5 c. c. are taken, it would require 2.4 gm. of Br. and 1.6 gm. of NaOH. In the apparatus of Dupre, 6 gm. of Br and 10

gm. of NaOH are used in a single test which is performed using 5 c. c. of urine. That of Russell and West calls for 100 gm. of NaOH and 75 gm. (25 c. c) of bromine to decompose the urea in 5 c. c. of urine. Those of Smith and Squibb call for 4 gm. of Br. and 10 gm. NaOH for 5 c. c. of urine. The Doremus ureometer uses 4 gm. of NaOH and 3 gm. (1 c. c.) of Br. to each test. It is very evident then that none of these tests are as economical as might be in the matter of reagents.

Another drawback, and a serious one, in a physician's office, is the odor of bromine fumes which is unavoidable every time the test is made.

As regards accuracy, all are more or less inaccurate because of the rubber tubing which conducts the gas to the measuring chamber, the rubber tubing being prone to expand or collapse, depending upon the difference of pressure. This is not true of Doremus' ureometer, the inaccuracy here being due to the fact that bubbles of gas will escape through the open arm of the tube, and also the possibility of injecting air after the urine has been injected. Another inaccuracy of no little importance depends upon the fact that the hypobromite oxidizes some of the urea to nitric acid. This occasions a loss of about 8 per cent of the nitrogen. It has been found by experiment, however, that when the urine is mixed with the sodium hydroxide and the bromine added later, this loss does not occur. Heretofore this has been impracticable, on account of the fumes.

The ureometers of Dupre, Smith, and Russell and West, are so complicated and occupy so much space as to be entirely out of the question, in a physician's office. The apparatus of Squibb is too complicated, both as to apparatus and methods of calculation, to be convenient. The most convenient form of ureometer devised up to the present time, is that of Doremus. This is too well known to demand description. It is, however, inaccurate, uses much more of the regent than is necessary, exposes the operator to the disagreeable bromine fumes and requires some dexterity in manipulation.

If, then, we can devise an apparatus, which is accurate, which is simply constructed, which requires no dexterity, which does not occupy too much space, which does away with bromine fumes, which is not too expensive for universal use, which is readily calculated, in short, which has none of the disadvantages of the other forms, we have the ideal ureometer. The apparatus described below, we believe, has all the essential requirements.

The test requires a 50 per cent solution of sodium hydroxide, of which 2 c. c. are used, and about 30 c. c. of bromine water,

which is a solution of bromine in water 1:30. This is obtained from a special apparatus which gives off no fumes.

The bromine water apparatus consists of two parts—a dark bottle, A, and a glass cylinder, B, which are connected by means of a 3 hole rubber stopper. The cylinder B is closed at the top with a 2 hole rubber stopper. The bottle A contains a layer of bromine at the bottom, above which is a layer of water which dissolves enough of the bromine to become saturated. A thistle tube, I, leads to the bottom of the cylinder; II, is a delivery tube which is immersed in the bromine water, but not in the layer of the bromine; III is a tube which connects the upper part of B with A. The siphon tube, IV, leads into A. The bend in the siphon must be lower than the top of III. To operate the apparatus, pour water into I. The water will rise in B, displacing the air, which finds an outlet into A, by means of the tube III. The pressure of the air in A forces the bromine water through the delivery tube II. Pour in enough to make the water in B rise to the level of the bend in the siphon IV. When it reaches this level, the flow of bromine water will cease and the water in B will siphon into A. The water in A will dissolve enough additional bromine to become saturated again. The amount of bromine water which escapes through the tube II, is exactly equal to the amount of water which is poured into the thistle tube I.

The uerometer consists of a bottle, C, containing a tall glass cylinder, F, closed at the bottom, and a small glass cylinder, E, marked at 1 c. c. and at 3 c. c. The bottle is closed by a rubber stopper through which pass the tube V and the rod VI, which is bent at right angles near each end. D is a graduate, giving percentage of urea. The line *mn* passes through the level of the liquid, in F, and through the outer extremity of the tube V.

To perform the test, fill the graduate, D, with water, to the mark 0. Take the stopper with rod and tube out of the bottle, C. Then operate the promine water apparatus, as directed above, catching the bromine water in the bottle C. Then fill the cylinder, F, with water, and place it in the bottle, C. Fill the cylinder, E, to the 1 c. c. mark, with urine, add the 50 per cent solution of NaOH to the 3 c. c. mark, and place it in position between the stopper and the lower arm of the rod VI. Then fit the stopper with tube and rod in position into the neck of the bottle, C. Be sure the stopper is tight. The tube, V, must lead to the bottom of the cylinder, F. Now tilt the whole ureometer ,so that the line *mn* becomes horizontal. Then blow a little air into the outer end of the water in F, forcing it out of the tube V. When the water has ceased running, slip the graduate, D, over the end of the tube, V,

and set the apparatus down. It is now ready for the admixture of urine and solutions.

This is accomplished by turning the rod VI on its axis, which withdraws the support from the cylinder E, and precipitates it into the solution, below. As the nitrogen is generated, it forces out an equal volume of water into D. The apparatus may be shaken a little, and the reaction is complete in about one minute. The apparatus may be tilted, and the water in D leveled with that in F. The tube, V, is then withdrawn from D, and the result read off in per cent of urea. The leveling before and after may be dispensed with entirely for the sake of convenience, as the error in the result is almost unappreciable. When corrections are to be made for temperature, etc., the water which is forced through the tube, V, may be measured in c. c., and the result calculated from the formula:

$$G = \frac{v\ (b - a)}{354.5 + 760\ (1 + 0.003665\ t)}$$

in which C is the weight of the urea in 1 c. c of urine; v, the volume of the water forced into the graduate; b, the barometric pressure in millimeters; a, the aqueous tension at t° Centrigrade; and t, the temperature.

The apparatus has been given a thorough trial in the laboratories of this college, and found to be perfectly satisfactory in every respect. The result is always a little higher than in other ureometers, owing to the greater accuracy. It is fully as convenient as any of the older ureometers, and requires less time in completing the reaction. The lack of bromine fumes is an advantage which will be appreciated by every careful practitioner. The apparatus is inexpensive, and can be manufactured in any chemical laboratory.

Clinical Department.

P. E. JAMES, '02, Editor.

There has perhaps been no case before our clinic creating a more general interest than that of a little colored girl six years of age. This patient has been suffering for about two weeks with a very severe attack of whooping cough, but was convalescent. There was some cough yet, and occasionally she would whoop. To control this she was given grs. ii of antipyrin in morning, noon, at 7 and at 8 p. m. But the interest was mainly centered on condition of eyes, which were seemingly one mass of blood, excepting the cornea, from sub-conjunctival hemorrhage, due to the severe efforts at coughing, and demonstrating

the desirability of controlling it. These capillary hemorrhages are usually not serious, however, as this case showed, for with the use of the hot boracic acid wash the eyes have practically cleared in two weeks, excepting that part of conjunctiva mostly exposed to irritation.

Case of Hare-lip.—An attempt to operate on this young man had been made at some previous time, but was unsuccessful on account of severe hemorrhage. But not baffled at this, he again determined to have his looks improved. The defect was bilateral, involving only the lip, not extending into nostrils, and leaving triangular tip in median line. The median incisors were somewhat prominent, but not sufficient to require reposition of os incisivum. This defective upper lip was much thickened, and appeared very vascular.

The operation: As this operation was entirely external to buccal cavity, it was decided to prevent any blood from entering mouth. Consequently the nares were well plugged with gauze, and the patient turned well on the side, thus overcoming all danger of blood being drawn into larnyx. The edges of central portion were pared, leaving a V-shaped segment. The edges of lateral portions were pared by incisions extending in crescentic manner from apices of clefts downward, leaving slight angular projections so that when these segments were drawn together, and united in the median line below middle segment, they formed a prolabium to allow for contraction of cicatrix. The three segments were united with cat-gut sutures, passing through entire thickness of lip excepting mucous membrane. A. Y-shaped cicatrix is the result. The wound was dusted with iodoform, and covered by pad of sterilized gauze, held in position by adhesive strips which also relieved all tension on sutures.

Case of young woman age 22.—Gave indefinite history of osteo-myelitis of tibia of left leg twelve years ago. Had been trouble more or less since then, as occasional fistula would form to provide drainage for the pent-up infection. When patient was brought before clinic, the leg was considerably thickened, with the fistula in lower third of leg, and about three inches below patella a spicule of bone projected, two inches long and one-half inch wide. This was somewhat moveable, but could not be removed by moderate traction. This spicule of bone was the upper end of a remaining sequestrum, which was acting as a very severe irritant and preventing recovery, and over which an involucrum had partially formed. From the fistula exuded large quantities of stinking material. For the removal of this foreign body an incision was made through soft structures and periosteum in an-

terior aspect of leg, extending from three inches below knee to two inches above ankle. The periosteum was pushed back, and a wide groove cut in involucrum the entire length of incision, and a sequestrum eight inches long and one inch in diameter was removed. With a sharp spoon all suspicious tissue was thoroughly removed, and the cavity irrigated. The soft structures were now drawn together by interrupted silk worm gut sutures, leaving opening above and below for drainage, and the cavity left to fill with blood, which will organize and thus fill in the defective portion of bone.

Case of man about forty years of age who had been traveling on west coast of Africa about two years ago. This patient appeared for the removal of a parasite which at this time was located in the left eye-lid. Four attempts had been previously made to remove this, or a similar parasite, from his body in the last two and a half years. Pain is produced only when it comes close to the surface. A month ago it had been seen on the chest, but it was at night, and no attempt made to remove it. This time it was seen moving quite rapidly under the skin of the eye-lid, which was grasped in such a manner as also to include the parasite. An incision was made directly over it, the parasite being allowed to wiggle itself into this opening when it was grasped, and slowly withdrawn. This parasite was about one and a fourth inches long and one-half line in diameter. Under the microscope it was found to be Filaria loa of which the following description is given: "Filaria loa is about 30 mm. long. It occurs in subcutaneous tissues, and is often found about bridge of nose, also under conjunctiva. It is a native of the west coast of Africa. It has been noticed in persons absent from that country for over ten years. When located in eye gives great pain."

Case of Xerophthalmia. This patient was about about 35 years of age. Gave history of trachoma nine years ago, resulting in entropion, for which plastic operation was done. He presented himself at clinic on account of great discomfort in eyes, due to dryness of conjunctiva. The lids were of grayish color; cornea was dry, grayish, thickened and opaque, interfering very much with sight, but very good considering condition of cornea. He could see enough to walk around. This case illustrates well the result of improper care of trachoma, causing degeneration of glands of lid, thus eliminating the lubricant which is of so great necessity to the welfare of the eye. Treatment in these cases is not curative, but some relief may be had by the use of white vaselin in the eye 3 or 4 times a day, and hot water applications before retiring.

The O. M. C. Pulse.

VOLUME V. NUMBER 6.

SUBSCRIPTIONS.—$1.00 per Annum in Advance. Single Copies, 15c. Published monthly during the regular College session.

ARTICLES on subjects coming within the scope of the different departments of this Journal are solicited from all our readers. Write on one side of the paper only; say what you mean to say, and be brief and plain.

Send all remittances as to subscriptions and advertising to THE PULSE, 1202 Pacific Street, Omaha, Neb.

Entered at Omaha Postoffice as Second Class Matter.

EDITORIAL.

Dr. Lemere, instructor in the eye and ear clinic of the O. M. C. presents a very interesting and practical article for our perusal. Dr. Lemere graduated from the O. M. C. in the class of 1898. He then obtained, by means of his good standing in a competitive examination, the position of house-surgeon in the New York Eye and Ear Infirmary, 1899 and 1900, the largest institution of its kind in the United States. He is well and favorably known to most of the graduates and students of the O. M. C. and we fell sure that an article from his pen will be closely and appreciatively read by all.

We present an article from two students of the O. M. C. who are well versed in laboratory work, a new means of the determination of urea. If any safe, reliable and less disagreeable method than the present one—the Doremus ureometer, I take it, being used by general practitioners almost exclusively—has been devised, it is certainly of great value to the profession. After

making a few tests with the Domemus tube, we feel rather inclined to accept the view of some good men in our profession, that the amount of urea has no great diagnostic value, but if this method does all it promises, we would feel inclined to try again. We feel sure that the inventors are to be congratulated on their ingenuity and we hope that many of our readers will give the new method a trial.

Before closing up the year for the O. M. C. PULSE, we desire to thank very much the members of our staff that have rendered us such valuable assistance. We desire especially to thank our faculty editor, our clinical editor, and our various class editors. To what degree THE PULSE has succeeded this year has been to their efforts. Our next issue will be the announcement number for the coming year, with the graduating program and the prospectus of the graduating class, so that this is our last issue with our present staff. We desire again to thank them and wish them success in any further ventures into journalism that they may make.

Dr. G. Frank Lydston, Professor of Genito-Urinary Surgery in the College of Physicians and Surgeons, Chicago, Ill., was a welcome visitor at the O. M. C. Wednesday, March 5, 1902. Dr. Lydston is a surgeon known not alone among the widely reading medical public, but amongst the general reading public. He is the author of several readable books, e. g., "Over the Hookah," besides his works on the surgery of the genito-urinary system. He delivered to our students a very interesting and practical lecture on diseases of the prostate, while the following day he instructed us in the diagnosis of syphilis by aid of a clinic. His remarks in both instances were original and practical and greatly appreciated by the students and factulty of the O. M. C., who were very glad to entertain so distinguished a visitor.

The O. M. C. Athletic Association was called to order Wednesday, March 5, 1902, by Wm. Wherry, President. The following officers were elected: Gage, President; Agee, Vice President; Baker, Secretary; Dickinson, Treasurer; Orr Manager foot ball team, and Harte, Assistant Manager foot ball team. Nothing more was done or said. The ticket was quickly voted through. Later the foot ball players met and elected Owen Platt, 1903, as captain of next year's team. Mr. Platt is a thorough, conscientious player and will make an excellent captain.

It is to be hoped that athletics are not dead yet in the O. M. C., though in the securing of favorable dates with other teams in foot ball we are worse off than if we had never begun. In forfeiting our last year's dates we have almost lost any chance of securing good games again. Still we hope that every effort will be made to place athletics on a firm and lasting basis, for clean athletics are a potent part of student life, even in a technical school.

Senior Notes.

JOHN A. PETERS, '02, Editor.

It should be the task of one whose literary ability is on a par, at least, with Judge Cooley to write the closing chapter in the history of the greatest class in the records of the O. M. C. Its wonderful achievements should not be dealt with by unskilled hands nor should its future be spoken of by one whose knowledge of similies, metaphors and hyperboles is not complete. And, were it not for the fact that justice is rarely done to the acts of great men, I should not attempt to record the closing events in the history of the class of 1902.

This last year has been an interesting one. Interesting, because it has had to do with the more practical side in the study of medicine; important, because the last. The regular yearly election of officers was the first important but not difficult event. The slate prepared at a caucus held prior to the meeting met with about as much opposition as did the present democratic governor of Texas. The meeting was necessary only to make the election legal. As a result the following officers were chosen:

Robert R. Kennedy, (the man with the ingrowing hair), president.

W. A. Fitzsimmons, (the drug magnate), vice president.

P. E. James, (a republican from Iowa), secretary-treasurer and clinical editor.

The duties imposed upon the latter gentleman were something enormous and would have produced a condition of inebriety in one less astute. But when we consider the fact that he is a republican and from Iowa, it is difficult to explain his retention of mental balance, even though his duties had have been less arduous.

A meeting of the Athletic Society was held for the purpose of arousing interest in the foot ball team and to induce the players to get out and practice. The result was a dismal failure. There were several classical speeches made by men of all ranks and nationalities, but their utterances might all be summed up in the

following language: "We sympathize with all wise and well directed efforts toward the maintenance of a foot ball team, and it is our earnest desire that you give your physical support, while we will always be ready and willing to stand on the side lines and cheer you on to victory." If sympathy were all that was needed to forward a good cause, Kentucky would probably be a prohibition state and the O. M. C. foot ball team would be a world-beater. The only game that was played this season was with Bellevue, which resulted in a defeat. Defeated, too, by a team that would stand no more show against a representative team of medics, than a man with ten cents would in getting a box seat at a Kubelik concert. Here's hoping that this atrocious crime shall be avenged by future students of the O. M. C., and that our foot ball team shall be again classed among the leaders of western colleges. Dr. Kruse of Millard, Hennings of Iowa City, and Miss Freda Dummer were the new members of our class at the beginning of the term, thus making it the largest graduating class in the history of the college. Dan Lee also became a member. The capricious nature of the sports indulged in by students of medical colleges necessitated the appointment of a medical staff, whose duties it was to administer to the injured and diseased classmates. Craft was accordingly appointed grand worthy medical advisor and H. G. Hully, chief surgeon. Under their skillful management the mortality has so far been nil, although Dr. Craft had a very difficult task in rescuing Carlisle from a severe attack of smallpox.

Owing, no doubt, to the studious nature of the individual members of the class and also to their striking morality, nothing much of historical importance transpired during the winter months. The coming of spring brought with it the realization of the fact that our time here is short and caused us to wonder of the future. What the misty beyond may have in store for us and what our standing in the medical profession may be ten years hence is probably better, for some of us at least, unknown; and yet if the past is any criterion of the future, it is safe to assume that the O. M. C. shall ever be proud of the class of 1902. We number, now, thirty-nine, and may the powers that control the granting of diplomas ordain that it shall never be less. And now may the unbounded success of prosperity which you so richly deserve be and abide with you all forever and ever.

Carlisle's prepossessing appearance and abundance of wisdom won for him the position of interneship in the M. E. Hospital. P. E. James received a similar position in the Immanuel. In both

instances the hospital authorities are to be congratulated as no men more capable could have been selected.

We are glad to report that our cognomen of Major has not been wasted. Captain Tinley of the Dodge Light Guards was recently elected major in the 51st Iowa. He has just passed the most creditable examination that has ever been written in Iowa—so says the general commanding—and as a consequence we will have to raise his title a degree. Here's to the major, and may he soon rise still higher.

Our Grand Worthy Medical Advisor, Dr. Craft, has been taking charge of a practice in the country during the past week. He has not yet returned to report his success, but it is safe to predict that the mortality of his cases will not be over fifty per cent.

Rathbun has gone to Lead City, South Dakota, to spend a month in the hospital in that city. Whether or not he intends to accept an interneship there after graduating is not known. Should that institution be in need of a competent man for this position, it would be impossible to make a better selection than Mr. Rathbun.

The anti-vivisectionists would have had a just cause for complaint had they witnessed a vaccination performed by a Junior and a Senior in the surgical room one day last week. It required the use of several artery clamps to control the hemorrhage, but the patient is yet alive though slightly anemic.

Miss Freda Dummer was called to mourn the death of her father, which occurred in March. The Senior class sent a beautiful pillow of flowers as a token of their remembrance of her in her time of sorrow. Miss Dummer has the heartfelt sympathy of the entire class and although this cannot heal the wounded heart it may help to lessen the pangs of sorrow.

Jones is taking fencing lessons, not, however, with the expectation of becoming an expert with the foils, but merely as an excuse for studying the personal characteristics of his instructress. He says it is a most charming study and hopes to master it before commencement exercises.

OLD TOWN, Neb., April 31, 1917.

The moon is slowly rising in all his splendor, with face flushed from his laborious climb, or perhaps from the effects of the last quart-er two, on the way up. A small cloud just passing in front looks like a cocked hat set on one side of his full face. A slight leer heightens the effect and gives the impression that he must have spent last night "with the boys." Through a

cottage window as the moonlight falls on his face, I see an old classmate, leaning back in an old arm chair, with his feet cocked up onto the office table. He is slowly emitting clouds of smoke after a long pull at his "clear Havana," and dreaming of those happy days long since passed—

"When the fever of life runs high,
When pulses throb and pale cheeks glow,
And lips know not a sigh."

Perhaps he wonders what has become of those who with him stepped so bravely into life's arena in the spring of '02. Not being a member of the Correspondence Circle, so the following may be of interest to him, if perchance it meet his eye:

"Dr. B. W. Christie is filling the chair occupied by his father, on the faculty of the O. M. C., and in sentences euphonious and long drawn out, but full of words of wisdom, inculcates in the coming generation of M. D.'s the methods whereby they are to combat the effects of the host of "materies morbae" that invade the human anatomy. It is needless to say that he is successful.

Dr. 'Bartholomew,' who previous to graduation, hadn't had his 'change of voice,' has developed wonderfully, refuting the charge of arrested development. He now has a deep, mellow bass voice, which he uses to good advantage on the oborigines of Bivangalabop, West Africa. He has taken up medical missionary work.

"Dr. W. A. Fitzsimmons has become celebrated in general surgery. His modification of the 'butterfly' operation is well known in surgical circles.

Dr. Milton B. McDowell, the irrepressible "Mac," the "Cad," of school days, is now a very 'eminent' cancer specialist, located at Gordon, Neb., where he conducts a sanitarium. His percentage of recurrences is reported as *nil*.

Dr. J. A. Peters, ye scribe, is still 'pushing the quill.' He decided quite early that he had missed his calling, and has become a prolific writer for Hostetter's Stomach Bitters, S. S. S., etc. He has devised a means whereby the active principle of tobacco, which was stored up in his economy, can be made a source of double profit to himself. A pilocarpine sweat is the first step in the process.

"Dr. William Yocum Jones is still in the laundry business. He turns the crank, Mrs. Jones does the rest.

Dr. E. J. Fleetwood has deserted medicine for the more remunerative business of distilling ardent spirits. A large timber claim near Winnipeg furnishes the material. This goes to show

that habits formed early in life sometimes determine the vocation of the individual later.

"But the man who has succeeded above all others in climbing to that pinnacle of fame which is reached only by hard, conscientious, honest work, and which has its reward not in the accumulation of piles of filthy lucre, but in the good will of fellow men, the almost reverence of the people for one's *true* physician. That man is Dr. W. Timothy Craft, the 'Timothy fan the wind' of long ago. He is located in Canada. He comes—

"Not winged with flame nor shod with wind—
But ambling down the pike,
Horseback, with saddlebags behind,
And guise all human-like.
Forever as he rides, it is in retinue divine—
The hearts of all his time are his, with your hale and mine."

MUNCHAUSEN, 02.

Junior Notes.

S. TRUELSEN, Jr., '03, Editor.

WHAT A NICE LITTLE BOY!

A nice little boy came running down the hill,
Across from the Omaha Medical;
As nice and fat as any boy could be,
Was this little boy near the O. M. C.

At the window in the library stood Rosie Rice,
Looking at the nice little boy;
"What a nice little boy," said she;
"Just as nice as nice can be."

And Tillie got up, and so did Christine,
To look at this nice little boy;
Remarked Christine to Tillie, " 'Tis true,
He's just as fat, my dear, as you."

And following the ladies, the boys came around,
To look at the nice little boy;
But here, oh, how I wish the kind dark night
Had hidden this youngster from our sight.

And Rose "got sore," and Christine sat down,
And Tillie looked like a tulip;
And the boys went out, their laugh to quell,
For this nice little boy made the river swell.

JIM AGEE'S WATERLOO.

The shades of night were falling fast,
When over the viaduct there passed
A youth who bore upon his head
A shock of hair from which all fled.
Ah, Waterloo! Dear Waterloo!
Thought Jim.

"Oh, tarry," said a maiden, "and rest
Thy raven locks upon this breast."
A tear stood in his blue eyes;
He looked at the maiden; then with a sigh,
"To Waterloo! To Waterloo!"
Said Jim.

"Oh, cut thy hair, you'll still have plenty,
The price is only five-and-twenty;
Then you'll appear sedate and benign,
When you visit that sweet lady thine.
At Waterloo! At Waterloo!"
Yelled Jim.

But Jim, he only shakes his head,
When something about his hair is said.
He minds not what the boys may yell.
My hair, they please my sweet little belle—
At Waterloo! At Waterloo!
Thinks Jim.

THE KNOCKERS' CLUB.

There is Chambers, the Piker,
With his long curly hair;
And Root, the Knocker,
Who has none to spare.

In all the four classes
Of the O. M. C.,
They rank as first knockers,
Though strange it may be.

Even down at Lincoln,
Where clubs just abound,
Two bigger knockers
Cannot there be found.

Though great their fame,
Soon it must pass—
So has resolved
The Junior Class.

Down with the Pikers,
And the Knockers to boot!
Down with Brother Chambers!
And down with Brother Root!

We'll nail the Pikers,
The Knockers we'll shoot—
So we'll nail Brother Chambers,
And shoot Brother Root.

Sophomore Notes.

HECTOR McARTHUR, '04, Editor.

Merkel has an extremely interesting case of vaccination on hand. We should be deeply obliged to him if he would report developments.

Hart and Shaw were called to their respective homes, the latter on account of the serious illness of his father, whom we are pleased to state is now convalescent, and the former to attend the marriage of his brother.

Mr. Nye spent a few days with his brother, "Bill Nye."

In our item last issue re South Omaha troop, the name Dickinson should have been Duncanson.

For a description of the quality of the college 'phone, we just refer you to Chauncey.

Meisenbach will take charge of a hospital during the summer months for Kilpatrick Bros., one of the largest railroad contracting firms in the West.

A stranger dropping into our college during our bacteriology

hour would imagine something more serious than "Fight of 1900" had occurred from seeing the profuse flooding from the eyes attended by the liberal use of kerchiefs. However, appearances are in this case deceitful, for the boys are simply doing a little practical experimenting in fumigation, under the supervision of Drs. Towne and Yeakel.

Campbell had a short visit from his brother, real estate dealer of Minden, Neb.

A student in Linton Block felt so pale after his reception by a neighboring landlady when calling to see some friends that he immediately bought a white hat to suit his complexion.

We are pleased to state that Keckler, who has been seriously under the weather, will be on the benches again in a few days.

We have organized a base ball team with Captain Dickinson at the helm. Practices have been weell attended and we should soon be in shape to meet any of the other college teams.

The McLaurin-Tillman episode was eclipsed in our last class meeting when Shylock roused the ire of Gopher by moving that he, Benedict and others had wrongfully obtained moneys from the Professor in the unholy cause of base ball. Blacksmith could not be quieted until his vote got due attention, while Kubelik and Silverlocks, in their anxiety to have the manager give bonds, aroused Canuck's temperature momentarily to 125° C. Mike managed to stay it out with a 4-foot shillaly.

FRESHMAN NOTES.

W. H. ANDERSON, Editor.

Mr. Rummery is again with us, having recovered from his recent illness.

Miss Bushnell visited in Glenwood during the first week of March.

Mr. Peterson enjoyed a visit from his father last week.

Morrison spent a few days at home this month.

The faculty will have a new aisle seat for Thompson next year.

The summer occupation seems to be a favorite theme for conversation just now. For some it will be a real vacation, but the most of us will have to put it in devising ways and means for next year's college work. While we will all welcome the close of school, it has nevertheless been an enjoyable seven months, and it will be with no little regret that those who have been thrown together constantly during that time will part to go their individual ways. However, hoping to see the whole crowd back again next fall, the editor '05 will make his final bow as a literary star and say, "Adios."

OBSTINATE CASES

CURED BY THE USE OF

PILL VITA (BLUE)

FALLS CITY, NEB.

GENTLEMEN—Replying to your favor of recent date regarding my experience with **PILL VITA (BLUE)** I would say that I have yet failed to find a case in which it was indicated, that its use had not given me uniformly brilliant results. Exerting as it does a special vitalizing action upon the glands of the reproductive organs and acting as a tonic to the general system, it is in my opinion the aphrodisiac *par excellence*. In the cases requiring a combination of this character where we find more or less Prostatic Hypertrophy with an engorged or congested condition of the bladder, **PILL VITA (BLUE)** seems to be the ideal combination, as the Saw Palmetto in the combination exerts a specific action upon the prostrate glands. In two cases of Functional Amenorrhea, in which the ovaries were in an atropic or sluggish condition, a three months' course of **PILL VITA (BLUE)** gave my patients permanent relief from all menstrual irregularities.

Very truly, C. L. KERR, M. D.

GOTHTHBURG, NEB.

DEAR SIR— Mr. W——, aged thirty-nine, married over two years, since having an attack of paralysis on left side has suffered complete impotence—I say complete advisedly, as he has not experienced in all that time even a partial erection. But I must confess my great surprise and satisfaction after twenty-four days' treatment with your **PILL VITA (BLUE)** to have the patient report himself entirely cured, and the verdict—guilty of using **PILL VITA (BLUE)** has created happiness in a barren household and reunited a happy couple.

Respectfully,
DR. W. P. SMITH, Asst. Surg. U. P. Ry.

GENTLEMEN—Please send me one dozen bottles **PILL VITA (BLUE)**. I am using it right along in old chronic cases of impotency, and in cases of sexual neurasthenia, with most gratifying success.

Yours truly,
C. H. HARRIMAN, M, D., Whitinsville, Mass.

GENTLEMEN—I am very favorably impressed with **PILL VITA (BLUE)**. I ordered them for a patient (a married lady), who seemed devoid of any sexual feeling whatever, having no desire for coitus, and only submitting from a sense of duty. It gives me great pleasure to inform you that two bottles of your **PILL VITA (BLUE)** have materially changed this condition, and the patient is rapidly gaining in sexual power. Previous to this t eatment she used almost every other aphrodisiac in the market with no effect. Please send me one-half dozen bottles, and oblige, S. J. BRIETZ, M. D., Hamilton, Ark.

GENTLEMEN—It gives me pleasure to attest the efficiency of your aphrodisiac preparation **PILL VITA (BLUE)**. I have tested its merits now in seven cases and have never found it necessary to administer more than two bottles to the most obstinate case. I regard it without a peer for what it is claimed. Yours truly,

R. L. SMITH, M. D., Macon, Ga.

GENTLEMEN—I received your last order O. K., and think your goods are put up in as neat style as any man could ask for. I am very much pleased with your **PILL VITA (BLUE)** and the success I have had in various cases treated with this pill proves it to be an efficient remedy for the purposes intended. Yours truly,

G. B. PARAMORE, M. D., Eureka, Fla.

GENTLEMEN—The **PILL VITA (BLUE)** recently ordered by me are received, and I have tried them thoroughly and find that they do what is claimed for them. The combination seems to be the best that is on the market. In the future I shall always use **PILL VITA (BLUE)** in such cases as aphrodisiac is indicated. Yours truly,

N. C. GUNDER, M. D., Columbus, Ohio.

GENTLEMEN—I am pleased with your **PILL VITA (BLUE)** because my patients are pleased with them.

Yours truly,
S. SEILTKOWITCH, 777 S. 3rd St., Phila., Pa.

GENTLEMEN—I presume I have spent as much time keeping up-to-date with remedies as most physicians, and I will say I was very much pleased indeed with the results obtained from the use of your **PILL VITA (BLUE)** and will use more of them in my practice in the future.

Yours truly,
A. J. ROGERS, M. D., Hillsboro, Iowa.

GENTLEMEN—I have used your **PILL VITA (BLUE)** in cases indicated, and they act like a charm. I consider them a big thing for a physician who dispenses his own medicine.

Yours truly,
C. H. B. GILE, M. D., Venango, Kan.

GENTLEMEN—I have tried your **PILL VITA (BLUE)** in three different cases, and obtained satisfactory results in all of them, In fact, tney work splendidly. Please find enclosed $1.00 for another bottle. Send by mail.

Yours truly,
A. C, EWART, M. D., Canaseraga, N. Y.

These letters are simply samples of many reports which we have received from reputable practitioners. Pill Vita (Blue) exerts a specific vitalizing action on the reproductive organs of men and women. It **Strengthens the Ovaries,** thus enabling them to REGULARLY perform their natural functions. It develops the mammæ glands and produces bust enlargement. It is a powerful general tonic for nervous exhaustion. It is not a temporary stimulant, but **Effects a Permanent Cure.**

100 MAILED TO ANY ADDRESS AS A SAMPLE UPON RECEIPT OF $1.00.

In dozen lots, $9.00 per dozen bottles of 100. Packages sent by mail are at purchaser's risk, and if lost will not be replaced by us. To insure delivery, send 15c in addition to price of Pills and we will send by Postal Rate Express, and guarantee delivery.

PORTER - RYERSON - HOOBLER CO., Omaha, Neb.

STANDARD PHARMACEUTICAL PREPARATIONS.

Also for sale by McKesson & Robbins, New York City: Fuller & Fuller Co., Morrison, Plummer Co., Chicago, Ill.; Gilman Bros., Boston, Mass.; E J Wittenberg & Co., San Francisco, Cal.; Blumaeur, Frank D. Co., Portland, Ore.; Meyer Bros., St. Louis, Mo.; Hover & Co., Denver, Colo.; E. E. Bruce & Co., Richardson Drug Co., Omaha, Neb.; Hornick, Hess & More, Sioux City, Ia.; McPike Drug Co., Atchinson, Kans.; Harle, Haas & Co., Council Bluffs, Ia.; Lincoln Drug Co., Lincoln, Neb.; C. D. Smith Drug Co. and Van Natta-Lynds Drug Co. St. Joseph, Mo

THE

"Simplex Vaporizer and Formaldehyde Sterilizer"

Does its work well, and sells at a popular price; is constructed of serviceable metal, has no glass appliances, requires no expensive pastilles, but handles any "antiseptic solution" nearest at hand.

Formaldehyde Gases can be conducted through a key-hole by applying a rubber hose to pointed vapor deliverer. A coach, bed-room or closet can be disinfected in thirty minutes time.

PRICE $1 25

The REFORM ALCOHOL - GAS STOVE.

It has the following advantages:

It **Manufactures its own Gas** and is ever ready.
It produces **More Heat** than any other stove and **Consumes** only **One-eighth** the amount of alcohol.
It boils a quart of water in 12 mitutes.
Either Wood or Grain Alcohol can be used.
It never gets out of order and is so simple that any child can operate it.

Used in the camps and hospitals of the United States, German British and French armies, and is the cheapest, safest and handiest alcohol stove ever put on the market.

PRICE $1.00

THE H. J. PENFOLD CO.,

IMPORTERS AND JOBBERS OF

Surgical Instruments, Physicians' Supplies, Drugs, Chemicals, Medical Books, Optical and Photographic Supplies.

1408 Farnam Street, OMAHA, NEB.