that I deeply appreciate the cordial expressions of approbation that have followed.

There seems to have been only one difficulty apprehended in connection with the operation, and that is with regard to the overlapping of the cornea. I stated in my paper that if overlapping occurred you had simply to trim away that part and you would never know there had been any overlapping. You make it coincide accurately with the sclero-corneal junction.

As to Dr. Weeks' interrogation: I have never seen any cystic formation follow the operation.

In regard to the procedure when the size of the pterygium was large, as suggested by Dr. Suiker, I stated that there was no objection to removing the head, and a portion of the sub-conjunctival elements of the growth if necessary. The essential thing in the operation is simply this, to have in the palpebral fissure a perfectly smooth conjunctival tissue and no heaping up of subconjunctival vessels, and no visible stitches, seam, or denuded sclera, to indicate that an operation has been done. It is covered by perfectly smooth conjunctiva and what vessels there are in the conjunctiva corresponding to the former situation of the growth are running in a vertical instead of a horizontal direction and there is no tendency to recurrence.

THIOSINAMIN.

CLINICAL AND EXPERIMENTAL OBSERVATIONS WITH
REFERENCE TO CORNEAL OPACITIES AND OTHER
OCULAR LESIONS.*

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CHICAGO.

Mr. Chairman and Members of this Section:

Permit me to invite your consideration of an agent which of late has received considerable attention in the field of medicine and surgery. The writer alludes to thiosinamin. Perhaps it has received more notice, both as to published reports and clinical applications, in the foreign clinics than in this country.

All the experiments and clinical applications of thiosinamin bear reference to its especial resolvent action upon cicatricial tissue. In this particular it has been used for the removal of keloids (Tousey, Newton), lupus (Hebra, Van Horn), urethral strictures (Newton), rheumatic joint affections (Upsam), and for various dermic lesions (Hebra, Sendziak). In studying the report of cases from the above class, it must be tacitly admitted that thiosinamin has a more or less specific action upon cicatricial tissue. This action is in the nature of a resolving or loosening.

In view of the fact that it has found a suitable field of application in general medicine, it has led experimenters and clinicians to determine its efficacy in such a class of cases in ophthalmic practice in which there is a cicatrix or an opacity interfering with the proper functioning of the eye or its adnexa.

THE CHEMISTRY OF THIOSINAMIN.

Before detailing any clinical data or mentioning the appropriate class of cases in which thiosinamin is possibly indicated, let us briefly recount its physiologic actions and chemistry. For it is the rationale of these that has led to its use in ophthalmic practice.

As to its chemistry, thiosinamin is an allyl-thio-carbamid or an alkylated urea in its construction. It can be obtained by mixing two parts of the oil of black mustard seed (CSNC_3H_5), one part of absolute alcohol,

and seven parts of aqua ammonia (sp. gr. 0.960). This mixture is gently heated over a water bath to 104; after several hours the same is evaporated over the water bath, when the crystals of thiosinamin are thrown down. The chemical equation for this is $\text{NH}_3 + \text{CSC}_3\text{H}_5\text{N} = \text{CSC}_3\text{H}_5\text{N}_2\text{H}_3$. It is artificially produced by treating allyl-iodid with silver sulphocynate.

The following formula shows its close relation to urea:

The allyl, being an unsaturated monovalent radical, is readily satisfied by the sulpho-urea, thus producing thiosinamin. The best formula showing its construction is this:

It gives glistening white acicular crystals, melts at 70 and boils at 148—soluble in alcohol and water; however, it readily decomposes in water. If glycerin is added to the aqueous solution, the decomposition process is sufficiently delayed so as still to be an adequate solution for hypodermatic injections.

PHYSIOLOGIC PROPERTIES.

Thiosinamin possesses no bactericidal properties whatsoever. Physiologically, we must look upon thiosinamin as an active alterative, thus virtually belonging to the same group of remedies as potassium iodid, mercury and the like. It is a gastric tonic. Thiosinamin is an active gland and lymph stimulant, in addition it always produces a hyper-leucocytosis. However, several hours after the first injection a marked hypoleucocytosis prevails—this is rapidly followed by a hyperleucocytosis. The white cells may drop from 14,000 to 4000 (Hebra). The hyperleucocytosis following the momentary hypoleucocytosis continues throughout the period of administration, though not as active as at first. Transudates and exudates are rapidly absorbed when thiosinamin is given. It produces local reactions without general disturbances.

The polynuclear leucocytes are greatly increased in number; even the amount of the hemoglobin is frequently increased. With reference to its action on the blood (Richter) thiosinamin must be classed with hemialbumose, sodium urate, urea, tuberculin, pepsin, and peptone.

The cause for the initiatory hypoleucocytosis has not been determined, though it is true of other glandular and leucocytic stimulants.

In briefly summing up its physiologic actions, we can say that it is indicated whenever it is desirable to have a local reaction in an inflamed, cicatricial or poorly nourished area, without materially influencing the general system as a whole; and, whenever a glandular stimulant is indicated or a hyperleucocytosis is desirable.

INDICATIONS FOR USE.

Though thiosinamin has been employed in many fields of medicine, its proper place is in the treatment of corneal opacities. Here it accomplishes the most good, yet the genito-urinary surgeon claims excellent results in urethral strictures. However, our interests center in ocular lesions.

The class of cases in which thiosinamin is indicated is:

1. Corneal opacities from any cause whatsoever.
2. Cicatricial contractions of lids following trachoma.

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Ophthalmology, and approved for publication by the Executive Committee: Drs. Frank Allport, H. V. Würdemann and J. A. Lippincott.

3. Certain intra-ocular inflammations, as exudative choroiditis.
4. Symblepharon.
5. Capsular opacities following cataract extractions (experimental).
6. Ectropion, especially cicatricial.
7. Plastic iritis.

ESPECIAL VALUE IN OPACITIES.

Though it accomplishes much in every one of this variety of cases, yet its greatest good is seen in corneal opacities. Still, the amount of success achieved in corneal opacities is dependent upon the nature of the opacity. Now, every corneal opacity, whether dense or not, is practically of the same cause. Briefly stated corneal opacities result from:

1. True cicatrices in consequence of actual corneal tissue loss.
2. Infiltrations of lymph, blood or serum between the corneal lamellæ which remain unabsorbed and per-chance are of a low type of organized tissue.
3. Exudates due to inflammatory reactions of the corneal layers themselves and which have remained unabsorbed or are partially organized.
4. Inflammations of the iris and ciliary bodies secondarily implicating the cornea and causing opacities, e. g., keratitis punctata. The density and size of the opacity are dependent upon the severity and nature of the corneal involvement.

Whenever the opacity is a true cicatrix, especially when involving both Descemet's and Bowman's membrane, then I doubt whether any medication whatsoever can be of avail—not even thiosinamin being capable of doing much good. True, every cicatricial opacity is accompanied by a certain infiltrate or exudate in its immediate neighborhood. This much of the opacity can be removed, and to this extent only is the opacity cleared up and thus the visual or cosmetic effect improved.

It is superfluous to make the remark that you can not remove or revitalize, as it were, true cicatricial tissue; for, it is the only way nature has to repair or replace any loss of the original tissue. And no repair throughout nature, even though effected by nature itself, is as good or of the same standard in every particular as the original tissue.

However, it is different when the opacity is due, not to cicatricial tissue, but to an infiltrate or an exudate pure and simple. It matters little whether the exudate or the infiltrate is organized or remains as a so-called foreign innocuous substance within the corneal tissues. It is in these opacities that thiosinamin accomplishes the most, because it stimulates the glands, produces a hyperleucocytosis and thus increases the metabolic changes in the cornea, thereby removing the exudates or infiltrates.

In some cases more good is obtained than in others, though they are of the same practical clinical aspect. But this is true of any therapeutic agent.

USEFUL IN ECTROPION.

The next field of application is in the cicatricial contractions of the lids, producing the very annoying condition of ectropion. In all such cases the writer advocates the very thorough trial of thiosinamin before resorting to any operative procedures, for the reason that the application of a 10 to 15 per cent. thiosinamin ointment with massage to the contracted lid, as well as the internal administration thereof, will so modify the tension of the cicatrix as to be an important factor should

an operation be ultimately necessary. If the ectropion is not very extensive or due to overly firm cicatrices, then thiosinamin will often overcome the defect. It loosens the cicatrix and thus allows the lid to resume its natural position. Though it may not relieve every form of cicatricial ectropion, yet it will so modify them all that the operation is materially benefited and the success thereof will be correspondingly greater. Hence, we can see that the application of thiosinamin in such cases is of no small importance. Sinclair Tousey and the writer have had signal success in cases of ectropion of the milder cicatricial variety.

In this connection, it may be said that thiosinamin often yields excellent results in the cicatrices of the tarsus and conjunctiva which are often the unpleasant sequelæ of trachoma. Here the remedy may be applied locally as an ointment to the everted lid, as well as being administered internally. Especially is it of value when grattage has been resorted to in order to effect a cure of the trachoma.

CHOROIDAL EXUDATIONS.

With reference to the benefit derived from the administration of thiosinamin in exudative diseases of the choroid and retina little remains to be said. After faithfully trying it in several recent cases, as well as in cases of long standing, of choroiditis exudativa, the writer finds that at times it achieves rather remarkable results. Yet the number of cases have been too few to definitely state its true value in this behalf. It seems to hasten the absorption of choroidal exudates when administered directly after the acute stage.

Though it does not accomplish as much in choroiditis as it does in corneal opacities, yet it does prevent the exudates from becoming too extensively organized, thus destroying the physiologic action of the choroid. As there is in nearly all such cases a cloudiness of the vitreous due to an exudate or infiltrate, the administration of thiosinamin materially mitigates this vitreous implication and maintains to uphold its transparency. For this reason, then, if for no other, is the drug indicated in cases of exudative choroiditis of the disseminate variety. Clinical experience has taught the writer that if in such cases as just mentioned, the thiosinamin is given with the potassium iodid and mercury, the results are better than when thiosinamin is not given. From no remedy can we expect an absolute *restitutio ad integrum* when once a lesion has taken place in a tissue. Yet, we can expect a partial removal of the effete material from said tissue by the administration of so-called alteratives—and thiosinamin is an alterative.

OTHER USES OF THE DRUG.

Black of Denver has achieved some remarkable results with thiosinamin, not only as regards vision, but also from the standpoint of cosmetics. In several of his cases the unsightly corneal cicatrices were remarkably reduced in density so as to be less unsightly. This, then, is another field of applicability, namely, to reduce dense corneal opacities for the sake of appearance, even if we fail to improve the acuity of vision.

Again, the writer has seen good results follow its use in plastic iritis. It forms a material adjuvant in this particular disease when given in conjunction with the other indicated agents. It hastens the removal of the plastic exudate, and to this extent materially modifies the end results as far as iridic adhesions and capsular opacities are concerned. Though it does not always produce the desired effects, yet it is worthy of trial in such cases.

In addition to the variety of indications already mentioned, thiosinamin can be used to an advantage for the sequelæ following trachoma, phlyctenular keratitis, pannus and such other lesions as produce cicatrices or opacities, due to either an acute or chronic condition of the cornea or conjunctiva.

Experiments have been made to determine whether or not it would prevent the maturing of cataracts or the formation of capsular cataracts, but no results of any value whatsoever have been obtained. This point is deserving of only a passing mention as a clinical experiment. For, in the hands of the writer, experiments along this line have been absolutely fruitless.

The foregoing remarks fully cover the indications for thiosinamin without entering into the minute details and, in a measure, state what is to be expected when it is administered in suitable cases.

MODE OF ADMINISTRATION.

Now a word or two concerning the mode of administration. Opinions in this regard seem to differ widely. Some, as Black, Newton and others, prefer the hypodermatic injections, two or three times a week. Again others, as Tousey, Ruoff and Beck, give preference to the administration per mouth. The weight of experience is in favor of three-grain capsules once or twice a day. The hypodermatic injections are not very desirable, as the solution does not keep overly well. Not only that, but abscesses are prone to follow; this has been the writer's experience. For topical applications, a 10 per cent. ointment is the most efficient. The latter can be applied two or three times a day in conjunction with massage of the part.

The idea of employing subconjunctival injections of thiosinamin for corneal opacities occurred to the writer but a short time ago. The fact that it is used locally for keloids led to the experiments. A 10 per cent. aqueous glycerinated solution is used. Of this 15 minims are injected three times a week; however, before administering thoroughly cocaine the eye. The injections are not painful, nor do they cause any great inconvenience. Whether or no they will accomplish more than the other mode of application is as yet an open question. Judging, however, from the results obtained in keloids, they might be productive of good in corneal opacities. Still, it being a general glandular and leucocytic stimulant, it seems rather problematical for local injections to accomplish more than the internal administration. Yet, often when agents are used locally in this manner they are more rapid in their actions than otherwise. This may be true of the subconjunctival injections of thiosinamin. However, repeated experiments and time will be the final judge in this matter.

Thiosinamin can be given with impunity to any patient of any age and, as a rule, in any state of the disease. Experience, however, pertinently teaches us not to give it freely in such cases as have a latent focus of tuberculosis or are convalescing from an articular rheumatism (Upsam). This warning is a good one, as the formation of a tubercle requires many leucocytes, and as uric acid is to a great extent dependent upon cell destruction. For, leucocytes are readily destroyed when not acting as phagocytes. We can, therefore, easily see how these two diseases would be aggravated were we to give it for any eye lesion present in such cases.

The results obtained are permanent in every case. That this is so is not very surprising when we consider that it simply causes exudates or infiltrates to be absorbed or fibro-cicatricial tissue to become less dense.

For, should the results not be permanent, it would indicate the return of the original cause of the lesion for which it had been primarily prescribed.

Thiosinamin can be given for varying lengths of time, from one month to two years. After the patient has been taking it for five or six weeks, it is advisable to intermit a week or ten days and then begin again. In some cases it must be given for several months before any appreciable effect is noticed, it therefore behooves us not to be discouraged. The writer has had cases under treatment for six months before any improvement was noticed. These have all been cases in which the opacity of the cornea was very dense. The delay seems to be due to the fact that only a moderate hyperleucocytosis obtains instead of a very marked one—the same being true with reference to its power of stimulating the lymph glands.

RESULTS OF ITS USE.

Now, what can we expect when thiosinamin has been properly given in selected cases. Firstly, we get a decided thinning of dense corneal opacities, they becoming nebulous as a rule. The cicatrices in ectropion become more pliable and thus materially modify the ultimate operation, if one is needed. The exudates, transudates and infiltrates in any of the ocular structures are more readily absorbed.

As a whole we may sum up the actions of thiosinamin as follows:

1. It is a marked tonic.
2. It favors the absorption of exudates, transudates and infiltrates.
3. It clears up corneal nebulæ.
4. It produces local reactions without general systemic disturbances.
5. It reduces glandular swellings.
6. It causes cicatricial tissue to become soft and pliable.

THE AUTHOR'S EXPERIENCE.

In conclusion, permit the writer to make a brief tabulated review of a series of cases treated during the last year with thiosinamin. In the report only the general results are mentioned.

1. Exudative chorioiditis, 6 cases; improvement in 4, none in 2.
2. Corneal opacities, very dense, 10 cases; improvement in 6 with visual improvement of varying degrees, none in 4.
3. Corneal opacities, nebulous, 8 cases; marked improvement in 4, both in appearance and vision; moderate improvement in 2, both in appearance and vision; no improvement in 2.
4. Plastic iritis 6 cases. Benefit in 2; no benefit in 3; slight benefit in 1.
5. Capsular cataract 3 cases. Not the slightest improvement in any (thiosinamin tried as an experiment).
6. Ectropion (moderate cicatricial) 3 cases. Improvement in 2; no improvement in the other.

Finally, the writer wishes to say that one is not to look upon thiosinamin as a panacea for every corneal opacity or other ocular lesion in which it is indicated, but that it, like other medicinal agents, is entitled to a due consideration in a certain class of cases.

BIBLIOGRAPHY.

1. Bekes: Ueber Thiosinamin, Arch. f. Kinderheilk., Bd. xviii, 14.
2. Döllken: Die Wirkung von drei isomeren Sulfoharnstoffderivaten, Archiv für experimentelle Pathol. und Pharmacol., 1897, Bd. xxxviii, 5, 16, p. 321.
3. V. Hebra: Vorläufige Mittheilungen ueber die Wirkung des Thiosinamin bei subcutaner Einverleibung, Vortrag am II Internat. dermatolog. Kongress in Wien, 9 September, 1892; Arch. f. Derma-

- tol. u. Syphil., 1892, p. 100; Wien Internat. Klin. Rundschau, 1892, p. 37, 39; Monatsschrift f. Prakt. Dermat., 1892, Bd. xv, p. 337.
4. V. Hebra: Weitere Mittheilungen ueber die Wirkung und Anwendungsweise des Thiosinamins, Monatsschr. f. Prakt. Dermatologie, 1892, Bd. xv, p. 432.
5. V. Hebra: Wien Dermat. Gesellschaft, II, Januar, 1899; Arch. f. Dermatol. und Syphilis, 1899, Bd. xlviii, p. 120.
6. Van Hoorn: Klinische und bakteriologische Versuche ueber die Wirkung des Thiosinamins. Verhandl. der deutsch. dermatolog. Gesellschaft, iv, Kongress, Breslau, 1894; Monatsschr. f. prakt. Dermatologie, 1894, Bd. xviii, p. 605.
7. Jackson, Geo. T.: Discussion, New York Med. Jour., vol. lxxv, p. 397.
8. Keitel: Ein Fall von Hautanästhesie nach subc. Injection von Thiosinamin, Charité Annalen, 1893, Bd. xviii, p. 693.
9. Lange: Dissertation, Rostock, 1894.
10. Latzko: Vorläufige Mittheilungen ueber die Wirkung subcutan. Thiosinamin Injektionen bei gynaekolog. Krankheiten, Wien. Klin. Wochenschr., 1892, Nr. 6, p. 103.
11. Mertens, L. J.: Die Wirkung des Thiosinamins auf Lupus vulgaris und Psoriasis, Wratsch, 1894, pp. 350, 352, 410.
12. Newton, R. L.: The Treatment of Keloid with Thiosinamin, New York Med. Jour., 1897, vol. lxxv, p. 380.
13. Richter, Max: Ueber die Wirkung der Injektion von Thiosinamin auf das Blut, Wien. Med. Wochenschr., 1893, Bd. xliii, p. 28.
14. Ruoff: Thiosinamin in Ophthalmology, Boston Med. and Surg. Reporter, May 16, 1898.
15. Sendziak: Pam. Towarz. Lek., Warsaw, 1893, Bd. lxxxiv, p. 785.
16. Spiegler: Centralbl. f. Klin. Med., 1893, Bd. xiv, 36.
17. Silferskiöld, P.: Ueber das Thiosinamin, Canstatt. Medic. Jahresbericht, 1896, I, p. 354.
18. Tousey, Sinclair: New York Med. Jour., Nov. 6, 1897; ibidem, May 2, 1896.
19. Tousey: Discussion, N. Y. Med. Jour., vol. lxxv, p. 397.
20. Unna: Monatsschr. f. Prakt. Dermatologie, Bd. xxix, p. 560.
21. Bloxam, C. L.: Inorganic and Organic Chemistry.
22. Strecker, A.: Organische Chemie.
23. Moeller, Peckel: Cod-liver Oil and Its Chemistry.
24. Helbing: Modern Materia Medica.
25. Moebius: Schmidt's Jahrbuch, 1889.
26. Remak: Berliner Klin. Wochenschr., vol. v, 1885.
27. Loewit: Physiologie des Blutes und der Lymph., Jena, 1892.
28. Falkenheimer: Mittheil. a. d. Med. Klinik zu Koenigsberg, 1882.
29. Beck, Jos.: Thiosinamin with Electrolysis in Tubal Obstructions, Trans. of the Western Ophthal. Oto-Laryn. Society, 1902.
30. Lewis, T. S.: Thiosinamin., Louisville Monthly Jour. of Med. and Surg., June, 1900.
31. Upsam: Thiosinamin in Chronic Joint Affections, American Medicine, vol. iii, p. 152.
32. Black, Melville: Thiosinamin, Ophthalmic Record, vol. vii, 1898.
33. Black, Melville: Clinical Contributions on Thiosinamin (not yet published; being a personal communication).
34. American Year-Book of Medicine and Surgery, 1896.
35. Telkey: Ueber Thiosinamin, Centralbl. f. d. Grenzgebiete der Medizin und Chirurgie, Bd. iv, No. 1, 1901.
36. Suker, G. F.: Thiosinamin—A Clinical Contribution to Its Study, Ophthalmic Record, vol. vii, 1898.
37. Suker, G. F.: Thiosinamin in Exudative Chorioiditis, La Clinique Ophthalmologique, No. xviii, 1898, Paris.

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DISCUSSION.

DR. H. G. SHERMAN, Cleveland, Ohio—Dr. Suker's paper has covered the ground so systematically that it leaves little to be said as to the nature, use and value of thiosinamin in corneal affections. Thiosinamin was first introduced to the profession by Von Hebra of Vienna, before the Dermatological Congress in 1892. Since then, many others have given considerable attention to its physiological action and therapeutic value, especially in keloids and various conditions resulting in cicatrices. Three years ago a most distressing case came under my observation: a young lad of seven years was scratched in the eye by another beneath whose finger nails there existed pathogenic germs very virulent in nature. The ensuing interstitial keratitis due to the exogenous microbial infection resulted in numerous cicatrices, reducing vision to 21/100. The condition baffled all treatment until my attention was called to thiosinamin by the investigations of Sinclair Tousey of New York, who found that the hypodermic administration of the drug rapidly produced an increase of the white corpuscles of the blood, exciting a coördinate activity on the part of the connective tissue cells, bringing about an absorption of adventitious tissue, the debris being eliminated through the blood. After employing thiosinamin in the above case in one-grain doses three times a day, for a period of one year, continuing the drug for a period of eight weeks with intermissions of ten days, the vision was improved to 20/40. Thus encouraged, I have employed the drug in all cases of avascular chronic keratitis resulting in cicatrices, and have found it a valuable remedy, in nearly all cases improving the acuity of vision, and producing no marked untoward symptoms other than slight nausea and dizziness which pass away after a day or so. Mendel and Remak, however, have reported sev-

eral cases in which entire groups of muscles have been more or less affected in their motor and sensory functions temporarily. I believe from my experience with a large number of patients in which this drug has been employed that it is of great value, and should find ready recognition in this class of most distressing cases.

DR. R. L. RANDOLPH, Baltimore—I would allude to the use of thiosinamin in a class of cases which has not been mentioned. I have never used it in eye troubles, but have had good results follow its use in tinnitus and I think its good effects are due to its action upon the vascular system. In some instances where I could get no improvement with anything else I have had very good results with this drug. I have never given it oftener than three times a day and in $\frac{1}{2}$ -grain doses, and a number of times have had vertigo follow its use. I would like to ask if the Doctor has had any such effect from its administration. I reviewed the subject in "Progressive Medicine" a few years ago, but was not familiar with its use in corneal affections.

DR. SUKER, in closing—In answer to Dr. Randolph's question as to the production of vertigo, I would say that this has occasionally been my experience, but the continued use, starting with $\frac{1}{2}$ -grain doses and gradually increasing, overcomes that. I have not found a patient that could not take three grains twice a day, but it is important to bear in mind that there must be an occasional intermission of ten days or two weeks.

A NEW OPERATION FOR COMPLETE LACERATION OF THE PERINEUM.

DESIGNED FOR THE PURPOSE OF ELIMINATING DANGER OF INFECTION FROM THE RECTUM.*

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The necessity for improved technic in repair of complete laceration of the recto-vaginal septum is emphasized by an occasional failure due to infection from the rectum, which may enter the wound when imperfectly approximated or by contamination of the sutures primarily and deeper tissue secondarily. Catgut may absorb too soon and allow the parts to separate. Silk sutures cause pain, ulceration, cicatrization and may even require removal through the speculum, all of which is undesirable. To overcome these objectionable features I have devised a very simple flap operation.

It consists in splitting the recto-vaginal septum, dissecting the lower end of the rectum from the vagina and drawing its anterior wall down through and external to the anus. In this way it converts a complete tear of the perineum into an incomplete laceration. The line of incision (black line, Fig. 1) starts on the external side of the sphincter dimple at a point close to one end of the sphincter muscle (S. M., Fig. 1). It follows the edge of the sheath of the muscle passing between it and the rectal mucosa, making the flap at this point as thick as possible; it then turns upward and forward to the cellular interspace of the recto-vaginal septum (S., Fig. 1) and follows along the edge of the septum, splitting it in the center, and returns on the opposite side to a place corresponding to the starting-point. This makes an incision similar to the ordinary flap-splitting operation, except at its extremities. The incision is best made with a pair of sharp-pointed scissors. After cutting through the cicatricial structures to the healthy tissue beneath, two pair of light compression forceps are placed on the rectal margin some distance on either side of the center, embracing in their grasp the entire

* Read by title before the American Gynecological Association, at Atlantic City, May 27-29, 1902.