with two added features which make it to my mind the ideal instrument for the removal of adenoids. Of all instruments for the removal of adenoids the curette is the best except for two drawbacks: it sometimes strips down the mucous membrane at the back and furthermore the growth is nearly always lost. These two drawbacks are eliminated by having a flexible blade which cuts the growth at the back and a basket which catches and retains it after it has been severed.

I shall endeavor to illustrate in these operations that the safety of our patients and the perfection of our work depends upon our ability to see what we are doing. There are a number of factors which are of importance in a safe and satisfactory operation. In addition to a mouth gag with a tongue depressor that exposes the field, we must have a good headlight and we must have an anesthetic apparatus that will keep the patient quietly asleep. The Caine-McDermott apparatus is a very satisfactory one.

Case I.—This patient is a boy, aged six, with a history of tonsillitis, colds, mouth breathing and enlarged cervical glands. With a fully exposed and well illuminated field and the patient sleeping quietly, it is a matter only of a few minutes to grasp the tonsil, free it from its attachments anteriorly, superiorly and posteriorly and remove it with the snare. The use of the tonsil clamp enables us to proceed with the removal of the other tonsil without loss of time. After the tonsils are removed we carefully check every particle of hemorrhage before proceeding to the removal of the adenoids.

The patient is not allowed to leave the table until the throat is absolutely dry. There is no part of the operation which I insist upon more strongly and none from which I have derived more satisfaction than the careful checking of all hemorrhage before permitting the patient to leave the table. After-bleeding is almost unknown and the anxiety from which I used to suffer in the old days has been replaced by a feeling of security.

Case II.—The second patient is a young lady twenty-five years old with a history of tonsillitis. I shall remove her tonsils under local anesthesia. After mopping her throat three times at intervals of five minutes with an 8% solution of cocaine I

shall inject 5 c. c. of a 1% solution of novocain to which has been added five drops of adrenalin solution. Two injections are made at the base of the tonsil, one anteriorly and one posteriorly, two in the supratonsillar region, one in the anterior pillar and one in the posterior pillar. When we are through injecting our solution we have a ring of solution ballooning up the mucous membrane all around the tonsil. The patient should have had a hypodermatic injection of one-hundredth of a grain of atropin half an hour before the operation, but in our unusual situation we overlooked it. We see the need of it now as mucus is flowing in great quantities so that it seriously interferes with our efforts. She has also evidently had a tonsillectomy performed, which also renders removal under local anesthesia more difficult on account of scar tissue.

After removing tonsils under local anesthesia it is just as important and more so to check all hemorrhage, however trifling. Unless we do so after-bleeding is apt to occur on account of the relaxation which follows the use of adrenalin.

Author's Note.—Five other cases were operated upon under general anesthesia. The anesthetics were administered by Dr. John R. Worley, of Dallas, Texas, and were particularly satisfactory. Dr. Worley began the anesthetic with nitrous oxid and continued it with ether vapor delivered by means of a foot pump. An ingenious suction apparatus which he himself invented removed all blood and mucus from the throat as fast as it formed.

SOME INTERESTING CONDITIONS SEEN IN THE EYE OF A NEGRO

BY CHARLES W. KOLLOCK, M.D.,
Charleston, S. C.

Twenty-four years ago I read before the American Ophthalmological Society a paper entitled, "The Eye of the Negro," and twenty-three years ago I presented at the Ophthalmic Section of the Pan-American Congress, then meeting in Washington, a paper under the title, "Further Observations on the Eye of the Negro."

In these papers were recorded exper-

*Read in Section on Eye, Ear, Nose and Throat, Southern Medical Association, Tenth Annual Meeting, Atlanta, Ga., Nov. 13-16, 1916.

iences and opinions which I have thought it might be interesting to review and see if they stood the test of time. With these will be compared, and recorded, the views of Dr. H. D. Bruns, of N. O., and Dr. J. L. Minor, of Memphis, on the same subject and read by them at later dates before the American Ophthalmological Society.

In the paper read by me before the American Ophthalmological Society, in 1892, I said:

"In presenting this paper for your consideration it is not intended that any new discoveries have been made, nor that there is anything wonderful about the eye of the negro; but after a somewhat extensive experience among them it seems that some points of interest, heretofore not emphasized, might be brought more into notice, and others which have already attracted very general attention may be further elaborated and discussed."

In the paper read before the Ophthalmic Section of the Pan-American Congress, I said:

"In a former paper on this subject it was concluded that the eye of the negro had deteriorated since he became free, and that this was due to the following causes: (1) syphilitic infection; (2) the lack of good and sufficient clothing and food; (3) total disregard of sanitary and hygienic surroundings; (4) frequent sexual intercourse with the whites of low condition which has produced the mulatto, who inherits the weaknesses of both races and therefore is rarely healthy, but generally syphilitic and tuberculous; (5) education implanted upon such a rotten foundation has produced its ill effects, such as myopia and attendant evils. Syphilis has caused widespread destruction among them and it is not an exaggeration to repeat that but few remain who do not show the infection."

Bruns, in his paper before the American Ophthalmological Society, in 1893, says:

"The social and economic position of the negro in the South has its effects upon the pathology of the eye. Thus injuries to the eye by foreign bodies are comparatively rare, because comparatively few of the race are artisans. On the other hand severe traumatism—brutal injury—of the whole globe by purposive violence or gross carelessness is common; and these conditions are usually presented to us in a wretched state owing to callous neglect or profound indifference. Tobacco and whisky amblyopia and its incipient manifestation, or an allied state, as a form of hemeralopia, is quite common; especially among the gangs of railroad and levee laborers, who, working far from bases of supply, are fed

almost entirely on salt pork, corn bread, and potatoes, and spend most of their cash for bad tobacco and worse whisky."

By my own observations, which cover more than thirty years, and by those of Drs. Bruns and Minor, which extend over a similar period, I am in a position to reaffirm the statement then made that syphilis is a potent cause of eye affections among the negroes. I am, however, prepared to admit, in the light of recent investigations, that in all probability some affections which were attributed to syphilis may have been tuberculosis. And since we have learned that in dual infections by syphilis and tuberculosis an iritis may be caused by one or the other, it is quite natural that a mistake in diagnosis should be made as to the real cause of the inflammation under consideration. It behooves us to jack up, as it were, our diagnostic machinery to meet the times. However, such a mistake could not be very severely censured for it is more than probable that the syphilitic infection preceded that of tuberculosis and paved the way for the latter by depleting the strength of the person by weakening the resistive powers.

Drs. Bruns, Minor and I agree that for some unexplained reason the negro is less liable to catarrhal, purulent and chronic inflammations of the conjunctiva than is the white, and many observers contend that trachoma is never seen in the negro. From the reports of others though, it is quite certain that this disease is very unusual in the negro. It does occur, however, in sporadic cases, but never, as yet, has assumed an epidemic form which might naturally be expected on account of the careless conditions in which they live. Bruns says, " * * * although persons of negro blood compose only about 36 per cent. of those who attend my clinic, of all or those with conjunctival catarrh the blacks made up about 26 per cent.; of those with phlyctenular conjunctivitis about 64 per cent.; of those with purulent conjunctivitis a trifle more than 50 per cent.; of those with conjunctivitis neonatorum about 33 per cent.; of those with trachoma about 9.5 per cent.; and those with pterygium about 40 per cent. These figures permit us to say unequivocally that phlyc-

tenular conjunctivitis is *the* disease of the conjunctiva to which the negro is pre-eminently liable, and trachoma the disease from which he enjoys practical immunity.

It is the experience of those who practice among these people that corneal affections are not only more common among them than with the whites but that the results are more disastrous and that leucomata, nebulae and maculae are of very frequent occurrence. As may be expected, distorted pupils, due to prolapse of the iris, anterior and posterior adhesions, occluded pupils and consecutive cataracts are by no means uncommon. In a review of ten years service at the Shirras Dispensary in Charleston, 37 per cent. of all the eye affections in the eye of the negro were of the cornea. This experience corresponds also with that of Bruns.

In regard to cataract and glaucoma the percentage of cases seen in the negro and white are about the same. It is interesting in this connection to note that the great majority of negroes whom I have treated for cataract were uneducated and, in many instances, were unable to read and had never used their eyes for work of a trying nature; and yet we see among them as many cases of uncomplicated senile cataract as among the whites. This would not support the theory which has been generally advanced that one of the causes of cataract is eye-strain due to errors of refraction.

Bruns thinks that persons of color are more often affected by the non-inflammatory glaucoma and in a slightly larger percentage than the whites.

The occurrence of optic atrophy is not only common in the negro but is becoming more so. Bruns reports 45 $\pm$ per cent. of optic nerve affections to be of this nature. The prevalence of syphilis among them explains a good number of these cases, and to them may be added those due to vicious modes of living, the use of alcohol and especially that which has been adulterated which is of common occurrence in communities where liquor is difficult to procure. While I am not yet in a position to prove it, I strongly suspect that many cases of optic atrophy are due to the adulteration of liquor by wood alcohol

which is easily obtained from drug stores, paint shops and similar places,

The relative occurrence of tobacco amblyopia is about the same in both races, but it is interesting to note the rather frequent occurrence of this among the negro women who smoke plug tobacco in pipes.

An especially interesting condition which is seen almost exclusively in the negro of pure blood is night blindness. This occurs quite often in connection with cases of xerosis which when complicated with kerato-malacia end in death. But there are a number of cases in which the cornea is not involved; the persons seem in fair condition and have only been brought because after sunset they begin to stumble and have difficulty in finding their way about. When tested by day the vision is usually normal and externally the eye shows no sign of trouble. The ophthalmoscope, however, reveals not infrequently a hazy, dirty-looking optic nerve in a stage of mild neuritis. A still more interesting fact is that this condition is found oftener in children than adults. A perimetric test might throw more light on this affliction for, so far as I am aware, no satisfactory explanation has been given as to the cause.

It is a well known fact that errors of refraction are not so common among the negroes as the whites, and especially is this the case with those of pure blood. Of 2,747 cases of errors of refraction reported by Bruns, only 535, or 19 per cent., were of negro blood. Of 1,074 cases of hyperopia, 20 per cent. were negroes, and of myopia there were 13 per cent. The experience of Bruns and me shows that errors of refraction are more common in negro women than men, which is accounted for by the fact that many of them are teachers and seamstresses whose work causes greater eye strain. If these investigations were confined to negroes of pure blood the percentage of refraction would be much less than reported by Bruns. Of many cases which I have examined, the great majority were hyperopic in a slight degree, while a few have had high degrees, one being 8 D. Of much less frequency among them is myopia and for many years I did not see a myopic case in the pure blooded negro.

In 1890, I reported eight cases, one of myopic astigmatism and seven of simple

myopia. Two of these were unusual, one having 12 D. and the other 16 and 18 D. respectively in the two eyes. I have but one more to add to this subject which, however, is of great interest to all—a woman, apparently of pure blood, 38 years of age and having 24 D. of myopia. She suffers from no pain nor discomfort and performs her work as cook with no complaint, except that of not seeing well. Hers were typical myopic eyes. Minor cites but two cases of myopia, one a teacher and the other a seamstress and both were mulattoes. I have kept no record of myopic cases among the mulattoes, as they are fairly common, especially with the lighter colored. Bruns' figures shows a greater percentage of myopia among negroes than mine, but his cases were persons of color, while those reported by me were all pure blacks. My record of nine cases seen in thirty years proves that in the simon pure negro myopia is still extremely rare.

In the discussion of my paper (Transactions American Ophthalmological Society, 1892) Dr. D. B. St. John Roosa said:

"As to myopia's being the result of civilization, I am an agnostic on that point. Until the investigations are made in the way they are now made, I do not conceive that we have data on which to form an opinion."

Dr. B. E. Fryer (Army Surgeon) reported that he had never seen a case of myopia nor strabismus among the Indians. Dr. Swan M. Burnett said:

"That the Negro is becoming myopic with civilization is without question."

Dr. Samuel D. Riseley said:

"I rise to place myself on record a step in advance of the position assumed by Dr. Roosa. I cannot say that I am an agnostic on the relations of the myopic eye to civilization. While unquestionably true that myopia is a concomitant of civilized life, it is not necessary to one's civilization, and, therefore, not one of the results of which we can boast with pride. It is an evil consequence of our complex necessities, and it falls alike on the student in our colleges, the seamstress, and the artisan. We cannot retreat from the teaching of Donders. Myopia is a disease, and, like certain other forms of disease, is one of the results of civilization; but like them, to be avoided by the application of a broader knowledge. When we reach the ideal management of the eye in civilized life we shall prevent

it, except in the extremely rare cases of congenital near sight, by better hygienic conditions, and by the correction of congenital malformations of the globe by optical means before the strain of school life is undertaken, and thus avoid the pathological conditions upon which it depends."

Dr. E. Oliver Belt, in a paper read before the Pan-American Congress, in 1893, said in conclusion:

"* * * the few cases of abnormal eyes found among the colored pupils, as compared with the white, indicate that the influence of more advanced civilization is the causation of defective eyes. Especially is this so of astigmatism, which was found in 0.25 per cent. of the white and only in 0.10 per cent. of the colored pupils. Heredity also has much to do with it. Myopes should not marry myopes, and parents with eye trouble should especially be careful to see that their children's eyes have proper attention in order that they may avoid the development of the same defects."

Dr. Peter D. Keyser said, in discussing that phase of my paper read before the Pan-American Congress, in 1893, which dealt with myopia in the negro:

"* * * but to the remarks of Dr. Kollock in relation to the negro's never having myopia I must say that there must be a difference in the eyes of the black race in the South from those in the North, although our confreres of the South have much greater advantage in seeing more eyes of the negro than in the North. In my experience of more than twenty years in the Wills Eye Hospital, of Philadelphia, I have found several that we call pure negroes suffering with well-marked myopia as well as compound myopia astigmatism. * * * Really, in my experience I find as the negroes are being educated to read that their attention is being called to the defect in vision and they seek assistance; and in proportion as these educated persons come to my clinic I find almost an equal defect as in the white."

It is natural to infer that where refractive errors are uncommon, anomalies of the extrinsic muscles are rare; and such is the case with the black. Burnett (S. M.) considered strabismus of great rarity among negroes, while, in 1892, Russel Murdoch reported a recent operation for strabismus on a pure blooded negro.

As yet I have seen but one case of uncomplicated strabismus in a pure negro. By uncomplicated is meant that no abnormal conditions caused by disease or injury existed. The case referred to has been reported by me and was of such interest to Dr. Francis Valk, of New York, that he requested permission to use the pictures

of the boy as frontispiece of his book, "Strabismus or Squint." Of this case Dr. Valk says:

"In considering the cause of the squint some years ago I doubted if the illiterate races could have squint of the second class, that is, squint in which hyperopia might be the cause. It occurred to me that all squint of these ignorant people, who seldom use the visual power at the near point, must have amblyopia or squint of the first class, as hypermetropes, who seldom call into action the accommodation and convergence, could not have any tendency to squint unless there were some other cause. On a visit to Charleston, S. C., in the summer of 1902, Dr. Kollock, of that city, gave me the photographs of the individual shown in the frontispiece of this book, stating that the boy had been operated upon and that it was a complete failure. (The operation was not performed by the writer.) Now this case fully illustrates squint of the second class in an ignorant farm hand who has never used the eyes at a near point—except to look for a watermelon—and yet it is evident that the vision is normal in each eye with a decided squint of the alternating variety. Had this case been considered in reference to the muscular condition, in which the evidence of the weakness of the extorini is apparent, and had a shortening or an advancement been performed on both extorini, and then a tenotomy, if needed, his squint would have been corrected with probably binocular vision."

Briefly, the history was as follows: a negro of 12 years of age had an alternating squint. Vision in each eye was 20-20 and under the influence of atropine with plus 2 D. was 20-20. I prescribed glasses for constant wear but he passed into the hands of another who divided the interni without any resulting improvement.

Finally, I would add that the eye of the pure blooded negro is, with one exception, practically in the same condition as it was when my first report was made in 1892. The exception is that myopia is very gradually increasing.

DISCUSSION

Dr. T. J. Dimitry, New Orleans, La.—One thing that was of special interest to me was the fact that Dr. Kollock has quoted Bruns, of New Orleans, who has done much meritorious work on this subject. The latter has accumulated well-taken histories and clinical facts for the last thirty or forty years, and it is with pride that he has amassed this data, which serves for such excellent statistical purposes.

These figures appear in the Annual Report of the Eye, Ear, Nose and Throat Hospital, of New Orleans. This data on the Negro, I believe, for years to come will serve as valuable assistance in working up interesting conditions in that race.

Dr. Robin, of New Orleans, takes pride in carrying on his desk a picture of a cross-eyed Negro of the Simon-pure type.

One objection I noticed in the doctor's paper was that he did not seem to note an unusual number of cases of simple glaucoma in the Negro race. It is very common,—extremely common among them,—so much so that when we meet with a Negro woman of 45 or thereabouts who happens to be complaining of not seeing well, it is the optic nerve with an excavation that is most carefully searched for. Iridectomy seems to hasten the condition, and our literature verifies this observation.

It is pleasing to note that he took up the condition of phlyctenula ophthalmalmia. I had an opportunity to examine some 500 such cases, searching for the tuberculous cause. These patients were examined thoroughly from a tuberculous standpoint. We felt that we would easily prove it was tuberculous, but our figures failed to confirm this suspicion. The proof seems to have been in the opposite direction.

Dr. A. L. Whitmire, New Orleans, La.—I would like to ask Dr. Kollock if this patient (showing photo) had his nose examined.

Dr. G. C. Savage, Nashville, Tenn.—I shall just base what I have to say on the two pictures of the one Negro, and I do it simply as a warning to all of you who may have cases like this. When there is any strabismus with fairly good vision in the squinting eye always suspect antipathy to binocular single vision. Then, the other thing I want to say is that when you have a case of antipathy to binocular single vision, you cannot possibly correct the deviation. Attempts to do so may turn the eye in the other direction; or, if you get them almost parallel, the worst thing will happen, and that will be troublesome diplopia. Be cautious in dealing with your cases of squint, where one eye is not blind from mental suppression. I always rejoice when I have a case of squint in which one eye sees poorly or none at all.

A squinting eye, where there is not antipathy to the single vision, is an eye that is always low in vision. The blindness is due to mental suppression. It begins in infancy and continues on through childhood, and the eye becomes blind, and yet it is not blind. The mind is blind,—that is all there is to that. And whenever that is the case, you may be sure that the eyes have common brain-cell connection, and then you can go ahead and do the operation, getting splendid results cosmetically, and a chance for seeing singly with the two eyes.

The best illustration I can give you is to be obtained from the street car. Two passengers are sitting on opposite sides of the car, each wanting to get off at the same corner; both touch the button at the same time; only one bell rings. There is a double impression, but a single sound. This represents a pair of eyes with common brain-cell connections—double impressions, but only one sensation. But suppose that my bell is at one end of the car, and the bell connected with the other button is at the other end. When I touch the button my bell rings, and when the other man touches his button the other bell rings. Here then are double impressions and each excites its own bell. This represents eyes that have not common brain-cell

connections, hence double impressions with double sensations which cannot be fused into one sensation. In cases of antipathy to binocular single vision, the macula of one eye is connected with visual cells in one side of the brain, while the macula in the other eye is connected with cells in the other side of the brain.

Dr. Flavel B. Tiffany, Kansas City, Mo.—I would like to ask if the doctor has noticed specially the eye-frame of the Negro,—that peculiar chocolate color,—and if he has, how he accounts for that; whether it is like all pigment cases; whether that gets somewhat larger in approaching glaucoma? I think it is considered that perhaps the Negro is more likely to have glaucoma than we.

Dr. F. P. Calhoun, Atlanta, Ga.—Two very common diseases exist among Negro patients in my clinical practice, viz., chronic iritis and Saemisch or spring catarrh. The first, of course, is of luetic origin in a large percentage of cases, and, as to the second, we have never been able to satisfy ourselves why the Negro should be so susceptible to it. In regard to the prevalence of amblyopia in the Negro due to alcohol and tobacco, my experience has been just opposite to that of Dr. Kolloch. I cannot now recall a single case of it.

Dr. Kolloch (closing).—In reply to the question as to whether or not the nose of this patient had been examined, I am under the impression that it had, but it has been quite a number of years since I saw him. Judging from the photograph and from the fact that the nose of the pure-blooded Negro is more open, and less liable to trouble than the white, I think it may be safely said that it was in a normal condition.

In reply to Dr. Tiffany's question, I believe the color of the eye ground is due to the pigment, and do not believe the Negro is more liable to glaucoma than the white.

As to what Dr. Savage said, having known Dr. Savage a great many years, and having great respect for his views, when I examined this patient and found the alternating squint, with good vision, I remembered his dictum and did not operate, but gave him glasses.

THE MODERN PLAGUE*

By THOS. W. DAVIS, M.D.,
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The interested observer does not require a detailed efficiency test to arrive at the conclusion that there is something radically wrong with the physical man of today, speaking concretely. The evidence on the surface in a day's experience with the mass of humanity is that of an unwarranted amount of decrepitude. Too many people are anemic, neuralgic, neurasthenic, rheumatic, suffers from some form of indi-

gestion, are incapacitated for life's work and pleasure, and are grown old and ugly and diseased at a surprisingly early age. How do we account for this? I should say that elementally, body nutrition is lacking, or if body strength is normally supplied, there is an undue loss of, or prey upon, that strength. I am positive with reference to the prey upon the body strength, and wish to reiterate the opening sentence of a former paper of mine, which is as follows: "On a parallel with parasitic blight of vegetable life is bacterial blight of the human body. The scrub oak and the insect-ridden fruit tree whose production is nil, one-half or one-third of what it should be, has its counterpart in the human being of the neurasthenic, neuralgic, rheumatic, and chronic faulty digestive type.

We have been convinced time after time by macro- and micro-scopical examination that the organisms of this human blight are the usual pyogenic or pus germs, staphylococci and streptococci. They are the common and avowed enemy of mankind. The fight in open battle is that of acute inflammation or abscess (so particularly is it his own that I will say man is the sponsor for suppurative inflammation). If perchance Nature or the surgeon (by ventilation and drainage) or both aid man at this time to overcome the enemy, the fight is by no means ended; only the character of the warfare is different, and here the enemy puts in his most telling work. Hidden away in some pocket or crypt usually about the mouth or throat, as likely it has been for years, unnoticed by the victim because there is no pain, these organisms operate a poison factory. Every hour of the twenty-four a little poison goes into the circulation of the individual, the ultimate result of which is to undermine body-strength and lower resistance. With this advantage gained, the renewed attack by the same enemy, it may be at some vital point as in the abdomen or cranial cavity, or instead of a purely pyogenic infection, the pus germ in the form of a complication may act as ally to some other branch of the germ family.

In connection with chronic pyogenic infection I want to mention and call attention to certain pertinent facts, one of these being the vulnerability of the mouth and throat, since all germ-laden material

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