do not know of any mode of preventing conception. He is enabled to speak with confidence upon points of this sort, because he lived for months in Indian fashion, without meeting a single white man; and because they have not the idea of concealing anything of what we call delicate matters. A woman's confinement, for example, is not a reason for excluding any visitor, male or female, who may choose to look on.

Confinement.—As has been remarked, there is no mystery at all made of the act of parturition. Mr. D. has himself witnessed the entire process, from the commencement of pain till after delivery, and it did not last over half an hour. Indeed, they are usually sick a much less time. He has seen a woman leave a dog train, to which she was attached, go behind the bushes, and within half an hour rejoin the company, her new-born baby in her arms. When at home, the woman goes into a separate hut to be confined. Another woman accompanies her; the *accouchée* then gets on her hands and knees, while the *accoucheuse* kneels behind her, holding a piece of wood as large as a broomstick in her hands. This stick is passed over the belly so as to bear fairly upon the centre of the womb; the nurse then pulls with both hands, with all her might, while the patient holds back and pulls herself in the contrary direction. The baby comes very soon in answer to this rather urgent persuasion. A wooden trough, stuffed with moss, stands between the mother's knees, all ready to receive him. He is taken up, washed with their invariable substitute for soap—stale urine—and wrapt in a rabbit skin. Disagreeable as is this liquid soap, it certainly does its cleansing work as well as that manufactured by civilized men. The cord is tied in two places, and cut between. The child is put directly to the breast, and almost invariably finds his proper sustenance there at the first trial. The adult head is often asymmetrical, either from the mode of assisting delivery, or some other unexplained reason.

The woman always gets up in a very short time; Mr. D. has known but one woman who lay-in as long as two days, and in her case it was on account of other sickness.

They do not suffer from uterine complaints after childbearing. [In this respect they present a striking contrast with certain of the Indians of the Northwestern United States.] These remarks on child-bed have a general application to the Inuit as well as to the Indians.

Indians generally are destitute of fortitude in bearing even slight pain. But in confinement, there does not seem to be any actual pain to complain of.

Puberty, &c.—Mr. D. "hardly thinks he ever knew a case of the occurrence of menstruation under 14 years." From 14 to 17 is the usual age with them. They marry when full-grown in stature. As to the age of cessation of the menses, it is hardly possible to make a statement, inasmuch as the Indians do not know their own ages with any sort of accuracy, and their appearance is no guide whatever.

Marriage—consists simply in taking a wife and living with her. Among the Ingalick Indians there is a great horror of incest, and they extend the notion of kinship so far as to exclude even fourth or fifth cousins from marrying or any sexual relations. These Indians are continent, relatively to those of the Koyukon tribe and others further east; yet even among them a married woman is hardly thought less of from the fact of her having too easy virtue. If she goes astray her husband beats her, but the man is not usually meddled with; it is considered the woman's fault, as it was in the case of Adam!

CHRONIC SYNOVITIS TREATED BY TAPPING THE JOINT AND PAINTING THE KNEE WITH TINCTURE OF IODINE.

By JOHN HOMANS, M.D., Surgeon to the Boston Dispensary, the Carney Hospital, and The Childrens' Hospital.

S. S., a pedlar, 36 years old, presented himself at the Dispensary October 6th, 1870. His left knee-joint was greatly distended with synovial effusion, and measured four or five inches more than the right. He gave the following history of his case:

One year ago, without known cause, his left knee swelled and incommoded him for three or four days, and then got better. Since that time he has had three or four attacks, lasting from two days to a week; but the present attack, which began three months ago, has been more severe than any of the former ones; the knee has steadily increased in size, obliging the patient to lay by once in a while for a day or two. Lately he has had great difficulty in walking, and great pain at night, preventing sleep.

On examination, the left knee-joint was found to measure about five inches more than the right, and was distended with fluid, probably synovial. Later in the day I etherized him at his home, tapped the

joint with a small trocar on its outer aspect, at a point about five inches from the extremity of the outer condyle, and drew off twelve ounces of clear, brownish, rather ropy fluid. The joint was tightly bandaged, and the patient kept in bed for four days; there was entire relief to the pain, no inflammatory symptoms, nor any constitutional disturbance. On October 12th, he began to paint the joint with tincture of iodine, as the effusion seemed to be increasing again. The next day he began to attend to his business, and has continued to do so since. On October 29th, the left knee measures half an inch more than the right; there is only a little fluid in the joint, and walking five hours a day causes no more uneasiness in one knee than in the other.

DEFECTS OF OCULAR REFRACTION, &c.

(Continued from page 343.)

LECTURE III. PART II.—*Presbyopia*.

WE have hitherto glanced at the principal general features of the subject. It is now time to look at some of the special defects which may be presented to the practitioner for treatment. The most frequently occurring of these is presbyopia.

Presbyopia results from a diminution of the accommodation. This diminution progresses physiologically with advancing years, and depends on changes in the lens-substance, which becomes harder with age. The accommodation begins to diminish in early life. This takes place in all eyes, but the emmetropic eye presents the typical form of presbyopia. The effect of this diminution must be to remove the near-point farther from the eye, so that an object can no longer be distinctly seen at so short a distance as previously. According to the position of the far-point, that is, according as whether the eye is hypermetropic, emmetropic or myopic, this progressive diminution of the accommodation will make itself felt earlier or later in life. In emmetropia the effect begins to be felt for the most part at about the age of 45 years, when, as is well known, many persons read easier by pushing off the book a little farther than the distance to which they have previously been accustomed. Such an eye may see well in the distance.

We must, however, remember that at about the age of fifty years there occurs a receding of the *far-point* so that an originally emmetropic eye becomes slightly hypermetropic. This so-called *hypermetropia*

acquisita gradually increases so as to attain at 80 years the degree of from $2\frac{1}{4}$ to $1\frac{1}{2}$.

The gradual change in the accommodation is minutely described by Donders. In youth the emmetropic eye "sees small objects, by preference and without perceptible tension, at a distance of about six inches. At a later period, this distance becomes greater. * * * Thus the time approaches that close reading and working are attended with difficulty. Presbyopia thus announces itself. Seldom do we hear at the same time that work fatigues. The complaint is rather that vision is not accurate, &c."

Presbyopia being an affection of the accommodation, limits the *range* of distinct vision, but does not diminish the acuteness of vision. The latter should be normal to the age of the person; otherwise we must look for some other defect besides what is remediable by spherical glasses, such as astigmatism, opacities of the media, or disease of the fundus oculi, &c. If we designate a patient as presbyopic, without further statement, we understand him to be emmetropic, or at the most as having hypermetropia *acquisita*, and suppose him free from other disease or defects of the eye. If hypermetropia, myopia, astigmatism, or any disease of the eye were present, it should be stated, being more important than the simple limitation of the range of accommodation.

We must, in considering any particular case, remember other affections which cause the binocular near-point to recede; such as insufficiency of the interni, or weakness of the accommodation resulting from disease, as after diphtheria, scarlatina, measles, or after hæmorrhage, and also glaucoma. Hypermetropia, if present, must be recognized, as it, also, indirectly, affects the near-point.

"The term presbyopia is, therefore, to be restricted to the condition in which, as the result of the increase of years, the range of accommodation is diminished, and the vision of near objects is interfered with."

As the diminution of the accommodation has been going on from an early period of life, the question naturally suggests itself, when shall it be considered that the defect called presbyopia begins? In the case of emmetropia, it might be said to commence when, from the cause mentioned, a person begins to have difficulty in reading or sewing, or the like near work, at the distance to which he has previously been accustomed, but finds it easier when the work is farther off. Donders defines it to begin in