CASE 2.—Reported by F. Denti.¹² A man, 38 years old, while intoxicated, fell from steps and sustained a total paralysis of the right ocular motor. (There was no report as to whether there was involvement of other nerves or as to whether there was fracture of the skull.)

CASE 3.—Reported by Gaupillat and Regnault.¹³ A young soldier, while fencing, was struck in the inner angle of the eye by a bayonet, making a very slight tearing of the conjunctiva. The patient was much depressed, fearing loss of sight. The eye was immovable; the pupil dilated; accommodation absent; light perception only. All unfavorable symptoms passed away and the question as to hysteria as the factor arose. (The loss of vision makes a diagnosis of hysteria possible, especially when taken with the patient's mental depression.)

CASE 4.—Reported by Prof. J. Komoto.¹⁴ A boy 4 years old was injured twenty-five days previous to having been seen. He was struck on the upper left side of the forehead by a falling wall clock. There was no loss of consciousness or vomiting. There was a left ptosis. The eye turned out and down. The pupils were normal. Recovery, except slight ptosis, took place. On account of the non-involvement of the pupil the diagnosis of nuclear paralysis is probable. It is possible that had the case been seen immediately after the injury, paralysis of the contractor fibers of the iris would have been noted.

CASE 5.—Devoe¹⁵ reports a case of double third nerve paralysis following an accident. Devoe believed that the cause was hysterical. Recovery. (The details of this case are so meager that it is impossible to class it definitely. Fracture of the skull is not eliminated or paralysis of other ocular nerves.)

In conclusion I can do no better than translate verbatim the conclusions of Dr. Girardot's admirable thesis on this subject:

1. Traumatic paralysis of the motor oculi are rare, especially when one takes into consideration the frequency of palsies of the ocular muscles.

2. The anatomic relations of the motor oculi with the base of the brain are such as to make laceration or compression by bone lesions easy. Indeed, it is not uncommon to see paralysis of the motor oculi associated with those of the facial, or patheticus or abducent and following fractures of the skull, but the isolated paralysis of the third nerve are independent of fractures. They are, probably, due to a hematoma located about the nerve or in its sheath.

3. From the standpoint of the symptomatology there is nothing of special interest, except that they are isolated and complete.

4. Admitting compression by hematoma it does not seem that surgical interference is justifiable, for though the process be a slow one, recovery occurs spontaneously in about two months.

482 Delaware Avenue.

ABSTRACT OF DISCUSSION

DR. WENDELL REBER, Philadelphia: I think this Section is indebted to Dr. Francis for a very careful study of a rare and interesting condition. The fascination in this kind of case is to find the site of the lesion. We see many isolated third nerve palsies, but isolated traumatic ones are rare indeed. Isolated palsies of the sixth or fourth nerve are common enough, such palsies of the fourth being most frequent after operation on the frontal sinus and of the sixth being an accompaniment of even minor fractures at the base. In diagnosing this case it is extremely important to exclude hysteria, and I think this has been done. Tuberculosis and syphilis have also been excluded. Hysteria, however, because of the suddenness of the phenomena, was the likeliest complication. This was hardly a hemiplegia, because there were no symptoms to account for it. There were no intracranial

symptoms of any moment, and there were no basal symptoms, so that by exclusion we are practically forced to assume that it was a fracture at the sphenoidal fissure with a simple hematoma. The one weak point in this diagnosis is that the hematoma should be so perfectly and beautifully limited as to impinge on to only the third nerve, and yet by exclusion it seems to me we are justified in making that diagnosis.

PRACTICAL IMPORTANCE OF HYPERPHORIA IN PRESCRIBING LENSES FOR USE AT PARTICULAR DISTANCES AND IN DIFFERENT DIRECTIONS *

M. D. STEVENSON, M.D.

AKRON, OHIO

Hyperphoria, when the head is in the primary position and the test object on the line of intersection of the extended median and horizontal fixed planes of the head (Savage), has received considerable attention by many able investigators. This paper will deal more particularly with hyperphoria at the reading distance and at the reading angle. The prescribing of prisms to correct hyperphoria is of great importance. The correction of 1 degree of hyperphoria, constant at a series of examinations, will give in the average case better results than the prism correction of a very much greater degree of exophoria or esophoria. Normal eye muscles have difficulty in overcoming a 3.5 degree prism base up or down, while adducting power of 50 degrees is often found. Normal eyes have vertical equilibrium. If a series of examinations shows 0.5 degree of hyperphoria, decentering of the lens or the introduction of a prism is usually advisable.

The degree of hyperphoria is often extremely variable at different examinations and even at the same examination. Sufficient time should be given for the patient's eyes to be disassociated, as those who have a strong fusion faculty may at first attempt to combine the two images, even if they are unlike, as the light and streak with the Maddox rod. In some cases the eyes are very loth to disassociate themselves and to rotate independently. A first hurried examination may show no heterophoria but later examinations an increasing amount. The screen, parallax and other tests are sometimes necessary. Cycloplegics by their effect on accommodation, and I think, by direct action on the external muscles, sometimes seem to aid in unmasking latent heterophorias.

After determining the proper lens for each eye separately and after repeated examinations of the hyperphoria have shown a nearly constant amount, the prism is tested in the properly placed and centered trial frame while the patient looks at the distant test chart. Patients will frequently at first reject a much-needed prism placed for only a short time in the trial frame. It is necessary to take sufficient time, that the eyes may adjust themselves to the new conditions. When needed the patient will prefer to retain the prism, as its removal necessitates quite an effort for adjustment. It is often helpful to learn in which part of the test, putting on or taking off the prism, the patient experiences greater difficulty or requires more time to make the adjustment of his eyes. If it takes longer to adjust the eyes on removing the prism it is very likely that a prism is required.

If the hyperphoria found is less than 2 degrees, I usually prescribe the equivalent in degrees by decenter-

12. Paralisi completa, periferica, traumatica del ter 20 pago del nervi cranici di destra, *Ann. di Ottal.*, xii, 562.

13. *Clin. Ophth.*, Feb. 23, 1908.

14. *Nippon Gankwa Gakukwai Zasshi*, viii, No. 1.

15. *Semaine mèd.*, 1890.

* Read in the Section on Ophthalmology of the American Medical Association, at the Sixtieth Annual Session, held at Atlantic City, June, 1909.

ing or prisms. When more than 2 degrees is present, I depend on comfort tests of prisms in the trial frames and do not, like many, always undercorrect. However, a 2.5 degree prism is usually selected for 3 degrees of hyperphoria and a 3 degree prism for 4 degrees of hyperphoria. There can be no fixed rule; each patient must be carefully tested. Hyperphoria of over 6 or 7 degrees, which is usually non-comitant or changeable (Duane), can seldom be comfortably corrected by prisms. Low degrees often occasion more discomfort and fatigue than high degrees because no attempt is made to overcome the latter. My operative experience has not been sufficient to enable me to determine definite policies in these cases. Prism exercises are sometimes helpful.

Many observers, recognizing the close relationship between accommodation and convergence, have studied exophoria and esophoria not only at the distance but in accommodation. It has been found that the excess or insufficiency of convergence (so-called), especially that found when fusion is entirely prevented, accommodation alone being active, varies greatly from the degree of esophoria or exophoria for the distance. A separate test is advisable before prescribing lenses for the reading or any special distance. Likewise hyperphoria for the near may vary from that at the distance as illustrated in a case by Theobald. Clinically it is more difficult to overcome a certain degree of hyperphoria for near than the same amount for distance. Not only is hyperphoria sometimes found to be variable at different distances, but the degree may also vary if the head be tilted up or down so that the eyes in looking at a distant fixed light are compelled to rotate in a different plane. Many of these cases are partial paralyses of the vertically acting muscles. Duane believes that many cases of hyperphoria are the result of paralysis. He classifies heterophoria as non-comitant, changeable, and comitant, also as periodic or continuous for near and far; Maddox classifies it as parietic and simple or con-comitant. In a considerable number of cases the hyperphoria varies, sometimes several degrees, depending on whether the eyes are in the primary plane or looking upward or downward. If hyperphoria at the distance sometimes varies in different planes, it would seem not unreasonable to suppose that a variation could also occur at the reading distance.

I have had an instrument made by the DeZeng Standard Co. of Philadelphia, to test the hyperphoria for near at various angles indicated on the instrument. The area of light through ground glass is controlled by a rotating disc with holes of various sizes. The light can be moved to any desired distance from the eyes. The Stevens photometer in connection with the Maddox rod is employed so that the amount of heterophoria is easily indicated. If an amount in excess of that registered on the instrument is present, a clip is provided in which an extra prism from the trial case may be placed. The instrument may be used for distant muscle testing by using a distant light, it being unnecessary to remove the small lamp which, however, can be easily done. The convergence near point for a light may also be easily tested by this instrument on which the meter angles of convergence are also indicated. The lamp may be removed from the shaft of the instrument and used to examine the field of projection when the media are not clear, e. g., in cataract cases.

At the distance the primary horizontal plane is the most important. The best plane for near testing corresponds with that in which the patient usually directs his eyes in near work. This varies, generally in making an angle of about 30 degrees with the horizontal plane. In quite a number of cases the hyperphoria at this angle, more or less constant in several examinations, varies several degrees from that found in the horizontal plane in near or distant tests. As would be expected in paresis, the hyperphoria sometimes changes if the instrument is moved from side to side. Some patients with orthophoria at the distance show two, three or four degrees of hyperphoria at the reading angle. Right hyperphoria at one angle sometimes becomes left hyperphoria at another. Patients will often suffer discomfort if they do not have prisms of different strength in their lenses for distance and for reading. Many such can not wear bifocals (unless perfection with appropriate prisms) because the hyperphoria is not the same for the distance as for near. Some with their hyperphoria properly corrected in separate lenses for near and far are greatly benefited.

It is also important to consider the prismatic effect of lenses when the eyes look through them in different directions. Duane states that he has found hyperphoria present in 15 per cent. of low cases of anisometropia, and in 32 per cent. of high cases. Bruner has found hyperphoria in 30 per cent. of cases of anisometropia. Imagine a patient with anisometropia with a nearly plane lens before one eye and a strong sphere or a strong cylinder at axis 180 before the other. In such a case without hyperphoria in the primary plane, if the patient moves his eyes behind the lenses from the primary to the reading plane or *vice versa*, he has to overcome in all positions but one, a large degree of what may be termed artificial lens hyperphoria, which is often very distressing and one of the common reasons why it is difficult to give these patients relief. Separate distant and reading lenses or half grab-backs or grab-fronts with correct centering for a particular plane should more often be prescribed in anisometropia and antimetropia. If the lenses are strong great care should be used to see that they are properly centered. It is often easy to bend the frames up on one side and down on the other to center the lenses better for distant objects. In cases of anisometropia with proper lenses and frames before the eyes, I teach the patient by having him tilt his head up and down, that there is only one easy position in which to hold his head in order best to see distant objects. He is directed to hold his head so that it will be easiest for his eye muscles. The person receiving reading lenses of different strength is taught that there is not only a proper distance for his close work but also that it should be held at a particular angle. An anisometropic patient whose lenses are quite different must learn how to hold the head and the best position for the object looked at if he is to derive the greatest benefit.

Many who use bifocals, since they are often compelled to look through their lenses at a strong angle, are made uncomfortable, not only by the changed astigmatism, but also because the hyperphoria, artificial or true, at that angle is not considered. I now test all patients at primary and reading angles without lenses and with them, and as a result sometimes prescribe two pairs or perfection bifocals containing different prisms where I used to prescribe unsatisfactory cement bifocals. Since hyperphoria is changeable,

its degree should be retested at intervals, especially if there is any discomfort in using the lenses.

Before this Section, it is unnecessary to be specific in outlining a policy in these varied and changing conditions. Each case must be a law unto itself, but this changing true or artificial hyperphoria with or without lenses deserves more attention.

Everett Building.

ABSTRACT OF DISCUSSION

DR. ALEXANDER DUANE, New York: As Dr. Stevenson states, the detection of hyperphoria frequently requires repeated examinations. Genuine hyperphoria may escape notice because it is slight or because it is latent. On the other hand, at the first examination a hyperphoria may be simulated when none exists. In the one case a true hyperphoria is concealed and in the other a false hyperphoria is produced by temporary spasmodic action of the muscles. It may then require repeated tests to show whether the habitual condition is one of orthophoria or the reverse. In cases of doubt, the use of experimental prisms, as suggested and followed by G. T. Stevens, may clear up the diagnosis. Thus suppose two patients present themselves, each with a hyperphoria of $\frac{1}{2}^\circ$. In one this minute amount may represent a real deviation of 1° or 2° , the hyperphoria being nearly all latent. In the other the $\frac{1}{2}^\circ$ may represent all the deviation that there is, or there may be no real deviation at all, the hyperphoria being spurious. In the first patient the finding is of much significance, in the second none. If each patient is made to wear a 1° prism for a day or two, the first patient will not only feel comfortable with the correction but after wearing it will show hyperphoria in excess of the prism prescribed. The second patient will find the prism annoying and a re-examination will show no more hyperphoria than at first, i. e., the prism will be overcorrect. A trial prism of this sort may be made up in the office in a spectacle frame, or be added as a "grab front" to the patient's spherocylindrical glasses. Still more important than detection of hyperphoria and the evaluation of its amount is the determination of its cause. A hyperphoria due to insufficiency of a depressor causes much more trouble than one due to insufficiency of an elevator or than one which is completely comitant. I have recently collected a large number of cases of very slight insufficiency of the inferior rectus, in which the symptoms, asthenopia, and less often vertigo, were very marked and persistent, the patient frequently being unable to use the eyes for near work in spite of the most painstaking correction of the refraction, and yet for distance the eyes could be used without discomfort. In such cases and, indeed, in all kinds of hyperphoria, the determination of the distribution and the amount of the diplopia in the outlying portions of the field of fixation afford invaluable aid. Such a determination ought to be made in every case of hyperphoria and in fact whenever the muscles are examined at all, for it often happens that in these very cases there is no hyperphoria whatever in the primary position.

Treatment comprises: (a) General corroborative measures. These are required in the hyperphoria of the hysterico-neurosthenic subject. In these cases the hyperphoria varies in amount from time to time. The field of double vision, too, is often very different in area on different examinations and is often disproportionately large considering the fact that the actual separation of the double images is very small. These patients require rest from eyework, proper bodily exercise, and such other general and local treatment as their condition may suggest. (b) Prisms. In comitant hyperphoria these are especially useful and well borne. In hyperphoria due to insufficiency of the inferior rectus, a prism may be incorporated in the reading glass only; or it may be added to the distance glass in the form of a "grab front" (to be used only in reading) or in the form of a "paster." In the latter case the shape and position of the paster should be carefully adjusted to correspond to the field of double vision—the paster in general occupying the outer and lower portion of the glass. I have in this way corrected an insufficiency of both inferior recti, a "paster," each consisting of a prism of 1° , base down, being

placed at the outer lower portions of each glass, in this way correcting a condition in which there was right hyperphoria in looking down and to the right and a left hyperphoria in looking down and to the left. One great objection to the "pasters" is that unless ground to a knife-edge they produce a very bad break at their upper margins and consequent monocular diplopia. (c) Operation. Of this I need not speak except to say that in general we resort to operation only when other remedies have failed and when the condition presents persistent symptoms serious enough to warrant such interference. We address ourselves to the muscle at fault—to the superior rectus or inferior oblique if the elevators are affected and to the inferior rectus if the depressors are affected. In comitant hyperphoria tenotomy of the inferior rectus should be avoided, advancement of the inferior or tenotomy of the superior rectus being performed instead.

DR. G. C. SAVAGE, Nashville: Any test of the ocular muscles to determine the existence of hyperphoria or other phorias, that is binocular in character, is unreliable, so far as the recti muscles are concerned. The binocular test is certain to excite one or more of the volitional centers into action, and each of these acts on a pair of ocular muscles, one belonging to each eye. The motor centers, both volitional and fusional, should be absolutely quiet throughout the test for hyperphoria. So far as the recti muscles are concerned, one can not do that with the Stevens' phorometer, or any other binocular instrument. It can be done with any instrument of the monocular variety. The only one, so far as I know, is mine. I want to say, however, that the monocular test in the distance, and not in the near, is the test for hyperphoria. There is only one excuse for testing in the near, and that is to determine the normality or abnormality of accommodation and convergence. There is only one excuse for testing to the right or left, or up or down or obliquely with the phorometer. I wish I had time to make myself absolutely clear, but I want to impress on you the importance of rest of all the volitional and fusional centers—absolute rest of the centers of every muscle that moves the eyeball. We can do that by having the monocular phorometer before one eye only, being sure that the image in that eye is displaced far beyond the possibility of fusion. Throw it out of the fusion area. Therefore, the displacing prism should be sufficiently strong to throw the displaced image absolutely beyond that area, and all the centers will have been put at rest—the centers of fusion as well as the centers of volition. The volitional centers are set at rest by looking straight ahead with the other eye; the fusion centers are set at rest by throwing the image, in the eye under test, so far out of the area of fusion that they do not enter into the calculation. By doing this, all the muscles of the eye are going to get into a state of tonic only, for it takes an impulse of some kind to make a muscle contract. If there is no neuritic coming from the fusion centers, no muscle will be affected. Now, if there is heterophoria, it is going to show itself, and one can measure it. The measuring device of the instrument and the displacing device should be before only the one eye, while the other eye should be free. It is just as easy to tell whether it is parietic or tonic hyperphoria, as it is to drink a glass of cool water when thirsty. Take a candle and tell the patient to fix his head, and without anything in front of either of the eyes, to follow the candle up and then down. If there is no doubting either above or below anywhere, there is no paresis, and the hyperphoria is one of tonic.

DR. W. H. ROBERTS, Pasadena: I am very glad Dr. Stevenson has brought this subject to our attention, because it is just as necessary to examine the external muscular balance in every case of refraction as it is to examine the fundi. I can speak from bitter experience, because I suffered from uncorrected hyperphoria for years and know what it means.

The necessity of carefully measuring the amount of hyperphoria for near, is well shown in the following case, a brief report of which follows:

July 8, 1904.—Mrs. W. C. B., aged 45, had been suffering from nervous prostration for some months. She had been unable to use her eyes for near for years, and more recently had to stop riding in her automobile, shopping, theater going,

and the like, as such expeditions always produced a violent headache. At the first examination I found:

O.D.V. 6/7.5 22 1½ esophoria.
O.S.V. 6/7.5 22 1° B.U.R. or B.D.L.

Ophthalmoscopic examination, normal.

After repeated examinations, I ordered:

R O.D. + sph. 1.25 = + cyl. 0.25 ax 90 ⊂ 1° B.U.R. = 6/5++
O.S. + sph. 1.00 = + cyl. 0.50 ax 75 = 6/5++
With + sph. 1.75 added to each for near.

She returned Oct. 8, 1904, saying that her eyes had felt much more comfortable until recently. I found that her hyperphoria had increased to 2½°. In three months more, this had increased a degree and a half for both distance and near, and with this corrected, she was more comfortable than she had been for years.

Two years later she returned complaining of the same troubles which brought her to me originally, and I found the following:

O.D. + sph. 1.50 = + cyl. 0.50 ax 90 = 6/5(5°) B.U.R. or B.D.L.
O.S. + sph. 1.25 = + cyl. 0.50 ax 75 = 6/5(2°) exophoria.
with + sph. 2.00 added for near.

She was given prism exercises which developed her interni and all exophoria disappeared. For the next year she was comfortable, as long as she did not attempt to use her eyes for near. In February, 1908, her hyperphoria for distance was 5½° and I then made the discovery that her hyperphoria for near was but 4°. Thinking that this discrepancy of 1½° might be the cause of her discomfort when using her eyes, I had made for her reading glasses with 4° of her hyperphoria corrected and she at once became perfectly comfortable and has remained so ever since. She uses her eyes now all she wishes and never has a headache. She has entirely recovered her general health too. I had difficulty in solving the bifocal problem, as I did not wish to use the perfection bifocal. I finally got my optician to grind a flake segment consisting of a + sph. 2.00 ⊂ 1½° prism, base down, which was cemented on her right distance lens which contained a 3° prism, base up. These bifocals she has worn for over a year with entire satisfaction.

Dr. W. C. Posey, Philadelphia: I am in hearty accord with Dr. Stevenson as to the desirability of carefully detecting and frequently correcting hyperphoria, as I am convinced that the correction of the ametropia alone in many cases in which hyperphoria is present, though even in but slight degree, will not relieve the symptoms or remove the source of the difficulty. Careful observation and a statistical study of a large number of patients who had worn vertical prisms for many years has shown me that the incorporation of the prism into the correcting lens has not made higher degrees of hyperphoria manifest themselves than in cases of similar degree in which prisms had not been ordered, while the marked relief which the prisms afforded in many instances have made them indispensable to me. It has always been my practice to determine the amount of hyperphoria at the reading point as well as at 6 meters, and I have frequently noted a discrepancy between the two distances and this is especially true of course in paralytic cases. Like many others perhaps, I have not infrequently given prisms of higher degree for reading than distance, when the hyperphoria was excessive, but the degree of the prisms ordered is generally based on the objective finding rather than on the subjective sensation of the patient.

Like Dr. Stevenson, I have found hyperphoria in anisometropia in all cases in which the difference in refraction between the eyes is at all marked, even when associated with a moderate degree of esophoria or exophoria. Where there is orthophoria in the horizontal plane, or but little difference in refraction between the eyes, hyperphoria is rarely present.

Based on a clinical study of 287 cases of hyperphoria which I made ten years ago, the results of which were communicated before the Section on Ophthalmology of the College of Physicians of Philadelphia (Nov. 15, 1898) I found that of the symptoms evoked by hyperphoria, headache was the most frequent, that of the supraorbital variety predominating. In a small proportion of the cases it was unilateral, usually on the same side as the eye with poorest vision. Typical attacks of migraine occurred in about 5 per cent. of the cases. A symptom of frequent occurrence and of great value in directing attention to the existence of hyperphoria was found to consist

in an associated reflex in the supply of the facial nerve. This may manifest itself either in a unilateral twitching of the lids, as in titillation, or more rarely, by a pronounced blepharospasm.

Dr. WILLIAM ZENTMAYER, Philadelphia: I am sorry that I can not agree with Dr. Posey as to the effect of vertical prisms of hyperphorias. I am certain that they frequently render manifest, latent hyperphoria, and in Ball's book I expressed the opinion that they might be used for this purpose in the higher degrees in order to render manifest the total error before operating. In the last ten years, I have prescribed vertical prisms in low degrees, under 2°, only very exceptionally. I believe that the cause for frequent ordering of them lies in the improper use of cycloplegics. If thorough cycloplegia is obtained and the error thus found almost fully corrected the occasion for the use of vertical prisms will be only rare.

Dr. E. E. HOLT, Portland, Me.: Ever since the phorometer came out I have used it continuously. I practiced using prisms or decentering lenses to a certain extent for years. Now, however, I find myself not using them and very little like the last speaker I correct all the ametropia and get along with that practice. Dr. Savage said that it is useless to use the binocular test for hyperphoria. I have an idea that I have discovered some constitutional diseases, particularly diabetes, by the use of that test for hyperphoria, and if I did not get anything more than that out of it I should consider it worth using.

Dr. MARK D. STEVENSON, Akron, Ohio: I was glad to learn from Dr. Roberts yesterday that a flake cement segment could be put on in these cases. My optician refused to make a cement segment and said that the only way to make a difference in the prismatic effect of bifocals was by making perfection bifocals. There is not a man on earth who satisfies all his patients, no matter how carefully his refraction work is done. I feel certain that those men who do not use prisms, especially for hyperphoria, will be surprised at the results derived from them in proper cases. Some dissatisfied patients, if hyperphoria is present, will obtain complete relief and be pleased if a prism is added to the correction they already have and some displeased anisometropes will be satisfied by attention to a few of the details pointed out in this paper. I have many patients who were temporarily relieved by lenses without prisms in whom hyperphoria developed and who could later be relieved only by the introduction of a prism. In some of these cases, as a matter of experiment, I have tried the same lens but without prisms and the patients were dissatisfied. The introduction of prisms again gave satisfaction. It is well to keep in mind the different causes of hyperphoria. Hyperphoria is real or latent, of which latter at first only a part may be discovered and more may uncover itself later. A certain number of cases are spasmodic. I have found variations in the degree within a few days, and a few months later with improvement of the general health the hyperphoria sometimes disappears, depending on its cause. I have frequently found that hyperphoria varies for the distance and for near, and that it sometimes varies at different angles.

Lack of Influence of Physical and Moral Trauma on Pregnancy.—The prevalent idea that emotional and physical shocks are liable to affect a pregnancy is shaken somewhat when we learn that at the time of the earthquake at Messina, pregnancy continued to normal term in twenty-five women several months pregnant. Notwithstanding the horrors of that time, the pregnancy continued unmolested to term, with delivery of normal children in all but one case, in which the woman had been felled by a beam across the abdomen and held captive for three days. Another woman was delivered prematurely, but not until six weeks after the catastrophe, and an existing endometritis was probably responsible for this. Rebaudi in making a report on these cases, quoted in the *Semaine Médicale*, May 26, states that the contrast between the shock, privations, lack of food, traumas and frequent fractures and the obstetric results is all the more striking as some of the women were of an extremely nervous temperament and some had aborted in previous pregnancies.