A NEW TRACTION FRAME *

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The traction frame illustrated was devised for a dispensary patient with acute hip-joint disease whose treatment it was necessary to conduct in a dirty and ill-ventilated home. The child needed traction and fresh air, and by use of the frame was enabled to have both. The effectiveness of the apparatus was so well demonstrated in this case that I have used it in several ward cases at the Post-Graduate Hospital with entire satisfaction and believe it to be more efficient than the ordinary form of bed traction, with the added advantage that patients may be carried into the fresh air when desired.

This traction device is added to the end of an ordinary gas-pipe frame (Fig. 1). It is made of stock fittings which are inexpensive and readily obtainable. In assembling the parts the only caution necessary is the insertion of pins

Fig. 1.—Detail for new traction frame.

Fig. 2.—Traction frame, showing patient with acute right hip disease.

Fig. 3.—Case of bilateral hip disease—one side acute with extreme flexion—on traction frame. Note that cord from right leg goes over upper pulley and cord from left leg goes under lower pulley.

(indicated by white points in Fig. 1) to prevent movement of certain pieces which should be stationary. Free motion at A and B permits of adjustment at any angle

from 90° to 180° and abduction if desired by slipping outward rod C. A and B are reducing Ts with the large caliber big enough to take the pipe passing through without binding.

Figures 2 and 3 show the frame in use in acute hip-joint disease both unilateral and bilateral, and also the detail of construction.

40 East Forty-First Street.

ORCHITIS SECONDARY TO TONSILLITIS
TREATED WITH HEXAMETHYLENAMIN

REPORT OF A CASE

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The therapeutic uses of hexamethylenamin have multiplied rapidly since its introduction into medicine by Nicolaier,¹ in 1894, and his demonstration of its excretion in the urine, in 1899. The well-known researches of Crowe,² in 1908 and 1909, showed that after administration of the drug by mouth it appeared in the bile, pancreatic juice, cerebrospinal fluid, synovial fluid, saliva, milk, pleural exudate and circulating blood. In 1910, Barton³ reported that hexamethylenamin is eliminated by the mucous membrane of the middle ear. Following this announcement Brown⁴ was quick to draw the inference that it should also be eliminated through the mucous membrane of the nasal sinuses, and Heitmüller⁵ demonstrated that it is eliminated by the bronchial mucous membrane. A year later, Armstrong and Goodman⁶ found that "hexamethylenamin, when given by mouth, is excreted in the sputum of tuberculosis, pneumonia, bronchitis and asthma." From these facts Nicolaier,¹ Crowe,² Richardson,⁷ Churchman,⁸ Barton,³ Brown,⁴ Heitmüller,⁵ Armstrong and Goodman,⁶ Bagby,⁹ Miller,¹⁰ Vanderhoof¹¹ and others have made many suggestions regarding the use of hexamethylenamin which have been applied therapeutically with the most gratifying results.

From a cursory glance through the literature I have been unable to find any mention of the use of the drug in the treatment of orchitis, and it is for this reason that I wish to report the following case, which is of further interest in that orchitis is only occasionally met with during tonsillitis.¹²

The patient, Mr. X., aged 20, unmarried, was a printer by occupation. His family and past history were unimportant.

1. Nicolaier: *Centralbl. f. d. med. Wissensch.*, 1894, xxxii, 807; *Deutsch. med. Wchnschr.*, 1895, xxi, 541; *Deutsch. Arch. f. klin. Med.*, 1899, xxxviii.

2. Crowe: *The Excretion of Hexamethylenamin in the Bile and Pancreatic Juice*, *Bull. Johns Hopkins Hosp.*, 1908, xix, 109; *The Excretion of Hexamethylenamin in the Cerebrospinal Fluid*, *Bull. Johns Hopkins Hosp.*, 1909, xx, 102.

3. Barton: *The Elimination of Hexamethylenamin by the Mucous Membrane of the Middle Ear*, *THE JOURNAL A. M. A.*, March 12, 1910, p. 871; *Elimination of Hexamethylenamin by the Mucous Membrane of the Middle Ear and Nasal Sinuses*, *Boston Med. and Surg. Jour.*, June 30, 1910, p. 896.

4. Brown: *Hexamethylenamin in Suppuration of the Middle Ear and the Nasal Sinuses*, *THE JOURNAL A. M. A.*, April 16, 1910, p. 1308.

5. Heitmüller: *Excretion of Hexamethylenamin*, *THE JOURNAL A. M. A.*, April 9, 1910, p. 1222.

6. Armstrong and Goodman: *The Excretion of Salicylic Acid and Hexamethylenamin in the Sputum*, *THE JOURNAL A. M. A.*, May 27, 1911, p. 1553.

7. Richardson: *Jour. Exper. Med.*, 1899, iv, 10.

8. Churchman: *Johns Hopkins Hosp. Rep.*, 1906, xiii, 180.

9. Bagby: *Hexamethylenamin in Pellagra*, *THE JOURNAL A. M. A.*, Nov. 5, 1910, p. 1603; April 29, 1911, p. 1280.

10. Miller: *Hexamethylenamin: A Remedy for Common Colds*, *THE JOURNAL A. M. A.*, June 10, 1911, p. 1718.

11. Vanderhoof: *Hexamethylenamin in the Treatment of Bronchitis*, *THE JOURNAL A. M. A.*, Feb. 3, 1912, p. 331.

12. Keyes: *Diseases of the Genito-Urinary Organs*, D. Appleton & Co., New York, 1910, p. 623.

* Shown before the Orthopedic Section of the New York Academy

He denied venereal disease; his habits were excellent. For one week previous to the time when I first saw him the patient had not been feeling well, although he was able to remain at work. He had felt extremely tired, had lost his appetite, could not sleep, and had had an almost constant headache and general pains over the body. He thinks he had had some fever. The day before I saw him he had the nose-bleed, which lasted for about one-half hour. The same day his throat began to be sore, and he noticed that his left testicle was swollen and tender.

Examination.—The patient was seen at 5 p. m., Dec. 24, 1911. His face was flushed, the lips dry, and the patient looked sick. The tongue was heavily furred and the breath was foul. No lead line could be made out. The tonsils were swollen and injected, and the pharynx was intensely reddened. The parotids were neither tender nor swollen. The heart and lungs were negative. The abdomen was negative except for slight tenderness in the lower left quadrant. Spleen was not felt. There were no rose spots. The left testicle was indurated and swollen. It was about one and one-half times the size of the right, and was very tender and painful. Pulse was 110; temperature, 102.8 F.; respirations, 30.

Treatment and Course.—The patient was given 5 grains of acetylsalicylic acid every two hours, and was told to spray the throat frequently with Dobell's solution. The testicles were supported and external cold applied to scrotum and neck.

December 25: The patient complained of severe and persistent pain in the head, back and extremities. The tonsils were greatly swollen and inflamed and the crypts contained a cheesy-looking exudate. The parotids were neither enlarged nor tender. The tenderness in the lower left quadrant of the abdomen had disappeared. Spleen was not felt. The left testicle was nearly twice the size of the right, was exquisitely tender, and the pain had been severe since the previous day. No effusion into the tunica vaginalis could be made out. Temperature, 102 F. Blood examination showed hemoglobin, 85 per cent.; leukocytes, 12,300; polymorphs, 67.3 per cent.; mononuclears, 25.3 per cent.; no abnormality of the red cells was noted. Vidal test was negative; Diazo, negative. Acetylsalicylic acid was discontinued and the patient was given 10 grains of hexamethylenamin every six hours.

December 26: Patient still complained of some pain in the head, back and extremities. The local condition of the throat was much better. The parotids were not enlarged nor tender. The left testicle was still swollen and slightly tender but there was but little pain. Temperature was 101.3 F.; pulse, 104; respirations, 25. Vidal and Diazo tests were negative.

December 27: The patient was decidedly better; had no pain. The tonsils remained a little swollen but were not injected and the crypts were practically clean. The left testicle, although still enlarged, had diminished considerably in size and was neither tender nor painful. Temperature was normal. The dose of hexamethylenamin was reduced from 15 to 5 grains every six hours.

December 30: The left testicle had markedly diminished in size but still remained slightly swollen. It was neither tender nor painful. The treatment was discontinued.

From a careful study of the case, and after excluding the ordinary causes of orchitis, I conclude that in this instance the orchitis was in all probability a metastatic infection derived from the primary foci in the tonsils. In view of the bactericidal properties of hexamethylenamin when decomposed within the body, it occurred to me that possibly the drug might favorably influence the course of the orchitis. What appeared at first to be a severe inflammation of the testicle very rapidly improved within forty-eight hours after the administration of the drug was begun. It is, of course, impossible to draw conclusions from a single case, but the result obtained here would, it seems to me, justify a further trial of hexamethylenamin in similar non-venereal inflammations of the testicle.

21 School Street.

A PRACTICAL OPHTHALMODYNAMOMETER FOR OFFICE USE

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The measurement of the amplitude of accommodation and convergence, and of the relative range of accommodation and convergence; does not receive, in routine practice, the attention that its importance demands. This neglect is due, partly, to a lack of appreciation of the significance attached to the data furnished by such measurements, and, partly, to the fact that a low-priced practical ophthalmodynamometer is not to be found on the market.

The accurate measurement of the relative range of accommodation and convergence is a difficult and tedious laboratory process requiring an expensive apparatus, great precision and expertness on the part of the operator, and more than ordinary powers of observation on the part of the patient.

Fortunately, for ordinary office practice, such exact measurements are not necessary; but decidedly more accurate work is required than it is possible to accomplish with the usual test-card and tape measure.

The apparatus herewith presented was devised to meet the ordinary office requirements, and is commended as an inexpensive, easily operated appliance combining all the essential desiderata for measuring *accurately* the amplitude of accommodation and convergence, and *approximately*, the relative range of accommodation and convergence.

A practical ophthalmodynamometer for office use.

The median bar measures 50 cm. and carries three scales, one in centimeters and millimeters, a second in dioptries-meter angles, and a third, marked "Age in years" (Prince), on which the numbers at the divisions correspond to years. This scale in conjunction with the dioptric scale indicates the amount of accommodation that is normal at different ages from 10 to 50 years. A convenient nose-rest is attached to the proximal end of this bar, and it is also provided with a handle, enabling the patient to hold the appliance in position during the examination. It also carries the object-holder which is so constructed that it can be easily slid back and forth.

The test-object furnished with the appliance is a Prince card, on the back of which a 2 mm. dot has been stamped for measuring the amplitude of convergence.

The lens-holders are mounted on a graduated cross-bar and can be adapted to the pupillary distance by means of a screw of double rotation. In order to bring the lenses to about 13 mm. from the cornea, the carriers are set back 10 mm., and the rings are pivot mounted so that the plane of the lenses can be adjusted to the visual axis.

For ordinary clinical work, the data furnished by this appliance in combination with the standard trial lenses will suffice without further computation, but if a more accurate measurement of the relative range of accommodation is desired, it may be readily obtained by calculating the exact strength of each lens at its distance from the eye.