value does not at present seem to have been demonstrated, as the reported number of cases are too few; the series of any one observer too small. What the future of the serum therapy in pneumonia will be it is too early to say.

Clinical Department.

CASE OF PATENT FORAMEN OVALE IN ADVANCED LIFE.

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ABRAHAM H., apparently a full-blooded negro, said to be fifty-seven years of age, was admitted to the hospital, February 25, 1898, suffering from general paralysis. In the notes of the physical examination, made at the time of admission, the following statement is made as to the condition of the heart: "Apex beat in sixth interspace, under nipple; no heart sounds heard; a long, loud murmur, systolic in time, can be distinctly made out at apex." During the patient's stay in the hospital, no indications of embarrassed circulation were noticed. On account of the color of his skin it is perhaps likely that cyanosis, if it had existed, might have passed unobserved. He died May 13, 1900, of exhaustion from a series of convulsions.

a. Foramen ovale. b. Communication between ventricles.

At the autopsy the heart was found to be moderately hypertrophied, weighing 375 grammes; the cavities, especially the right ventricle, were dilated. The valves were healthy. The foramen ovale was present, measuring $2\frac{1}{2}$ by 2 centimetres in diameter. It was divided into two unequal parts by a small tendinous cord. Immediately under the right aortic semilunar valve was an opening forming a communication between the ventricles. On the side of the left ventricle it was about 1 centimetre in its longest diameter; on the side of the right ventricle, not more than 2 millimetres in diameter. So far as could be judged from appearances, this was probably a congenital defect.

The patient was a pensioner on account of disability alleged to have been contracted during the Civil

War. This, as well as his advanced age, seemed of interest in view of the condition of his heart. I accordingly made inquiry at the Pension Office in regard to his military and medical history, and also of his mother, who is still living, as to his health in early life. His mother, in reply, denied that he had ever suffered from shortness of breath in childhood, and said he always had good health until he went into the army. A communication from the Pension Office states that "the records show that the soldier enlisted February 28, 1865, and was discharged on surgeon's certificate of disability March 31, 1866. On muster rolls to August 31, 1865, he is reported present; September and October absent without leave; from October 31, 1865, to February 28, 1866, present. The certificate of disability is not on file, but the records of the regiment show treatment in the regimental hospital for valvular disease of the heart at various dates from November 3, 1865, to April 15, 1866. The first medical examination held in the case was made December 7, 1887, but the condition of the heart was not reported until his second examination, August 6, 1890, when the board described a pronounced and remarkably distinct musical mitral systolic murmur heard over the entire left chest, the location of the organ being normal."

It is hardly probable that the examination at the time of enlistment was very rigorous, but it seems rather singular that such a disability should not have been discovered on the most superficial investigation, and still more so that the patient should have lived to be fifty-nine years of age without any striking cardiac symptoms, dying at last of a disease entirely independent of his malformation.

Both of the abnormal openings can be seen in the above photograph.

Medical Progress.

RECENT PROGRESS IN OPHTHALMOLOGY.

BY MYLES STANDISH, M.D., AND WM. DUDLEY HALL, M.D., BOSTON.

ORBITAL COMPLICATIONS OF EMPYEMA OF THE ETHMOID CELLS.

VIEUSSE,¹ in these numbers, gives a very complete account of the subject. The first article contains a very good description of the anatomy of the ethmoidal labyrinth followed by a clinical history of 14 cases. In the second article the symptoms are taken up in detail. It is more than probable that the starting point lies in the os planum of the ethmoid rather than by infection through the agency of the veins. As the orbit becomes invaded by products of inflammation we notice swelling of the lids, exophthalmus and a tumor at the inner angle of the eye. This latter varies in size from a small pea to even a hazel nut, may be round or diffuse, firm or fluctuating and painless. Pressure may cause a flow from the nostril and there may be a sense of crepitation. Proptosis may be slight, the deviation down and out with but little impairment of motion. The edema may be limited or diffuse, and there may or may not be diplopia. The fundus changes suggest a mild neuritis and the vision may fall to .2 if there is pressure on the nerve. The third article discusses the etiology, and has spe-

¹ *Rec. d'ophthal.*, March, April, May, 1899.