condition as before; the eruption ran the same course; and, with the exception that the attack was less severe, it corresponded in every particular with the former one which I had seen. This was therefore the third such attack from which the patient had suffered. On the first occasion the patient was under the care of Dr. Herbert Osborne, of Vredefort, O.F.S., who has kindly furnished me with the following particulars in regard to it: The eruption then commenced three or four days after the patient began to take a tonic mixture containing iron and liq. arsen. mij thrice daily. The eruption corresponded exactly with my description of the subsequent ones; he had considered it was not due to the drug on account of the local and limited distribution, but was unable to find any adequate local cause.

It appears certain that the eruption was caused by the arsenic prescribed, as on all three occasions the onset occurred from two to four days after commencing to take small doses of that drug.

There are two points in the case which appear specially worthy of note. In the first place, the distribution of the eruption did not vary, and was definitely localised, being limited to the hands in each of the three attacks, and leaving the dorsal surface for the most part unaffected. This striking local distribution of the eruption naturally led us off the scent in coming to a right diagnosis. In the second place, the eruption agrees almost exactly with the rare disease known as "pompholyx." The only point of difference appears to be that in this case many of the bullæ ruptured spontaneously, whereas it is stated that in cases of pompholyx this never happens; but as regards distribution and character of the eruption, the resemblance is otherwise complete and striking. Herpes zoster is known to have been caused by arsenic in numerous instances. This case seems to resemble pompholyx so closely that I would suggest it is to be regarded as a case of that disease caused by arsenic. In this light the case also acquires a further interest, as indicating that pompholyx may, like herpes zoster, be as Crocker suggests, "primarily of neurotic origin, probably a vasomotor neurosis." The intense feelings of irritation felt at the time of the appearance of the eruptions may perhaps be regarded also as favouring this view.

ON MEDIASTINAL FRICTION; WITH NOTES OF A PECULIAR CASE.

By JAMES ADAM, M.A., M.B.,
Hamilton, N.B.

THE following remarkable case of mediastinal friction, with peculiar sounds evoked by change of posture, is even more striking than that of Drs. Perez and Harris.¹ The patient, a well-built, somewhat spare, man, aged 26, has always been in good health except as stated below. In October, 1892, while reaching his right hand up to a shelf, he felt sudden pain about the heart. He was laid up four days. In November, 1893, when I first saw him, he suddenly had similar pain, and lay up a week, when it gradually ceased. For the first two days the temperature was about 101° , and respiratory murmur was almost inaudible over the left chest, but no other abnormal sign was found. In a fortnight he returned to work feeling quite well, though the chest condition was the same.

On April 21st, 1895, while dancing, he was suddenly seized with pain, at first along the sternum, but soon passing toward and settling around the left nipple. He at once went to bed, applied a fly blister, and got relief, though slight pain continued for a day, and recurred whenever he lay long on the left side. He had no dyspnoea, cough, or expectoration, and felt well but for the pain. The temperature and pulse were normal. The left chest moved on respiration, but no air seemed to enter; there was no respiratory murmur or vocal fremitus, little vocal resonance, no *râle*, bell sound, or echo. The girth of the chest was the same on each side. Heart dulness was absent, but the sounds distinct and pure.

On the second day of the illness he first noticed an extraordinary symptom. When he lay on the left side severe pain at the left nipple returned, and a double sound accompanying the

systole and diastole of heart was audible to bystanders several feet from him. This sound, he aptly likened to the double sound produced when you quickly dimple a rubber ball and let it rebound, or do the same with a felt hat. It had a loud, hollow ring. Examination in various postures then revealed great variation in physical signs of the left chest; the right remaining normal.

PHYSICAL SIGNS.

I. *Patient Supine.*—A slightly hyper-resonant note was obtained over the front and side right down to the stomach note at the sixth rib. Breath sounds absent; no abnormal sound. Vocal fremitus absent, vocal resonance nearly so. Heart dulness absent, sounds pure.

II. *Lying on Right Side.*—The same as in I; feeble respiratory murmur at left base.

III. *Sitting.*—Lung as in I and II. Cardiac dulness can be detected at fifth rib. When patient leans slightly back a soft blowing murmur follows second heart sound, and sometimes also the first. To this is sometimes added a harsh, rasping, and evidently friction, noise coming after the second sound; occasionally it followed both sounds, being then heard along with the blowing murmur. These murmurs are heard all over the normal cardiac area, but most distinctly along the sternum. They vanish when patient leans forward. They were never heard after the third day of illness.

IV. *Lying on Left Side.*—This position gave surprising results. Air was now heard entering lung freely, with slight prolongation of expiratory murmur below clavicle. Vocal resonance and vocal fremitus became normal. Behind, the physical signs were normal, except for slight diminution of respiratory murmur at apex. Heart dulness could now be percussed of normal size, slightly displaced to left, the apex beat being easily felt an inch outside nipple in fifth space. In this position the rhythmic double sound accompanying the heart beat and audible to bystanders was heard. It was not constant, being most readily evoked when, with the patient semiprone, one's fingers were pressed on the cardiac apex, where it seemed to be produced. It vanished when the patient turned a little off the semiprone position, but air still entered lung freely till he rolled on to his back. This sound was not heard after the tenth day. The pain at the nipple recurred when he lay long on left side or when he exerted himself.

In a few days he went to the country, and returned on May 3rd feeling well. Air then entered the lung freely in all positions; the only abnormal signs were slight hyper-resonance of the percussion note, which was clear down to fourth rib, slightly diminished fremitus, and when he lay on left side the apex beat, previously inside the nipple, fell to one inch outside, and pulsation could be seen in the third and fourth spaces. At the present date no difference from the normal is found, even when arms are raised.

The case excited the interest of several doctors to whom it was shown; none of them had heard such sounds as those described. It is difficult to account for the mobility of the heart on any supposition but that of a slight pneumothorax; yet the patient, till the onset of the illness, had no complaint whatever, and has never had cough or expectoration. Possibly he has an undue tendency to rupture his air vesicles while holding his breath, and thus pneumothorax might be caused. There was no subcutaneous emphysema. In all positions but that on the left side the heart fell back, and the left bronchus was nipped either by the large vessels at the base of the heart passing in front of the bronchus, or by adhesions in the mediastinum. The double borborygmous sound, like magnified heart sounds, was certainly caused by the action of the systole and diastole on an air-containing space, possibly by the heart pulling on adhesions between the pericardium and bronchus, or by the alternate expulsion of air from, and return of it to, the area between the pericardium and the chest wall.

NOTE ON THE THERAPEUTIC USES OF CELLOIDIN.

By R. T. WILLIAMSON, M.D., M.R.C.P.,
Medical Registrar Manchester Royal Infirmary, and Assistant to the
Professor of Medicine Owens College.

Most medical men who work practically at pathological histology will be well acquainted with the value of celloidin as an embedding agent, and many will have been annoyed at the tenacity with which it adheres to the skin, if a few drops of a solution be allowed to dry on the fingers. It was this fact which suggested to me the use of celloidin in medical practice, and for several years I have employed it, and have found it of service in many ways. No doubt others will have employed it also. I recommended it to my friend Dr. Mackenzie some time ago as a permanent dry coating for wounds, when the edges can be brought well together, and I

¹ BRITISH MEDICAL JOURNAL, January 11th and 25th, 1896.