pass beneath him. Collections of matter formed in the right arm and hand. Two of these were opened, and discharged "laudable" pus; tongue dry in the centre, but moist and white at the edges.

30. He lingered through to-day, supported by some laudanum, and died during the night, after much delirious muttering and groaning.

Autopsy twelve hours post-mortem.

On examining the body, various collections of white thick pus were found in various parts. The largest was formed under the left pectoralis major, extending under the whole of that muscle, and, as some supposed, communicating with the shoulder-joint of the same side. The synovial membrane of the left knee-joint was distended with white pus, and the same kind of matter penetrated down the right arm along the extensor tendons of the thumb. The cartilages of the affected joints were softened, particularly in the knee, the capsule of which was injected. The great veins of the superior and inferior extremities were minutely examined, and found to be quite healthy.

On opening the pericardium, which was much distended, there escaped a quantity of turbid serum with flakes of lymph in it. The surface of the heart presented a well-marked specimen of the morbid appearances of pericarditis. It was covered with a thick coat of lymph, easily removed, rough, and laminated. The interior of the organ was not inspected. The surface of the loose pericardium was lined with the same coating, bands of the same character passing from it to the heart. The apex of the right lung contained a few tubercles in an early stage. The left lung was healthy, but the opposing sides of the pleura were covered with a layer of recent lymph, and adherent in some points. There was also some effusion of serum in this part. Nothing particular in the abdomen, with the exception of there being three supernumerary spleens, about the size of nutmegs. There was an effusion of fluid beneath the arachnoid, elevating that membrane at its convexity, but the substance of the brain was natural.

THE CAUDAL HEART IN THE EEL AND CONGER.

To the Editor of THE LANCET.

SIR,—Observing in your memoir of Dr. Marshall Hall's essay on the "Circulation of the Blood," that you state the part described by him in the tail of an eel, under the name of a caudal heart or ventricle, to have been

before described by Professor Jacobson of Copenhagen, I take the liberty of pointing it out to you as an error, and of referring you to the 19th volume of the *Edinburgh Medical and Surgical Journal*, where Professor Jacobson's researches are reviewed. What is there stated is, that "in other vertebrated animals than the mammalia," a new and peculiar system of veins exists, which is not directly united with the other veins of the body. By means of the veins which compose this system, the blood, which flows back from the middle or posterior parts of the body, does not go directly to the vena cava inferior, and afterwards to the heart, but is conveyed either to the kidneys or to the kidneys and liver. This system is observed in birds, reptiles, and fishes, and its primary form undergoes three degrees of modification." This venous system "is destined to convey the venous blood returning from the middle or posterior parts of the body to the kidneys, or to the kidneys and liver, and regulates in these organs the functions of secretion. Hence in birds, reptiles, and fishes, the secretion which takes place in the kidneys, is effected by means of veins and venous blood." This you will see is very different from the part described by Dr. Hall, and exists in a large class of animals, whereas the caudal heart exists, as far as his inquiries have gone, only in the eel and conger, and is not found in a fish so nearly allied to these in form as the lamprey. What it actually is, or what is its use, seems difficult to determine, but I believe Dr. Hall is the first who has noticed the structure. Having assisted him in the whole of the investigations preparatory to his essay, and witnessed every fact recorded in the work, I may be excused for addressing you on the subject, more particularly as the same mistake of a similarity of structure occurs in the review of Dr. Hall's essay in the *Edinburgh Medical and Surgical Journal* for January, and where even the reference is given to Professor Jacobson's description in the 19th volume of the journal.

I remain, Sir, your obedient servant,

HENRY SMITH.

Torrington Square, Dec. 7, 1832.

CORRESPONDENTS.

As we find it impossible to insert replies in this week's *LANCET* to all the questions of our several correspondents, we think it prudent, in order to avoid an appearance of partiality, to defer the insertion of the whole of the notices prepared for this page, until our ensuing Number.