A few days subsequently, another man, aged about 35, came from the same village with a similar pustule on the forearm, about 3 inches above the wrist. He was a butcher, and thought that he had probably inoculated the arm from a sheep. He had first noticed the swelling five days before. He had also a heightened temperature, quickened respirations, and to some extent the same bloated, puffy appearance of the face. The local swelling extended to above the elbow and down to the hand. The pustule was discharging, sparingly, a thick yellow serum from a small opening, the edges of which were blackened. Encouraged by the former case, I adopted the same treatment, repeating the injections three times at intervals of two days, and afterwards merely applying lint steeped in the solution to the open sore, which was completely and satisfactorily healed after a fortnight's treatment.

A third case was that of a boy from the same village, with a pustule on the lip of four days' duration. The constitutional disturbance, though marked, was much less than in the two previous cases, and he was cured in a week with two injections of one drachm. In each instance an ordinary hypodermic syringe with a steel needle was used, and it apparently did not affect the value of the mercuric salt.

A few weeks ago, I may mention, I treated a very extensive and angry carbuncle situated on the back of the neck of a gentleman, the *Chargé d'affaires* of a European mission here, by similar hypodermic injections of the perchloride solution, with the happiest results. The most marked feature in the case was the rapid diminution of the pain and the surrounding swelling, both of which were excessive, after the first injection.

CASE OF MULTIPLE CALCULI REMOVED FROM THE URETHRA AND BLADDER OF A MAN.

By SURGEON J. A. CUNNINGHAM, M.D., I.M.S.,

Civil Surgeon, Amritsar, Punjab;

ASSISTED BY LALLA MEHR CHAND,

Honorary Assistant Surgeon to the Viceroy.

THE patient, Kamal Din, aged 20, a Mahomedan male, presented himself at the out-patient department of the Civil Hospital, Amritsar, on January 30th, in great suffering. He stated that he had passed several small pieces of stone by the urethra, and had suffered from symptoms of stone for the last seven years.

On examination, it was found that he had phimosis, and that there were several perineal fistulae, through which decomposed

urine oozed; only drops could be passed *per urethram*. He was the subject of congenital spinal curvature and talipes equinus, and altogether was a miserable specimen of humanity. His life was a complete burden to him, and he was anxious to submit to any operative procedure to get relief. The sound detected a calculus in the glans penis portion of the urethra which prevented its further passage. An enema was given, and he was at once operated on.

After an anæsthetic had been administered, the prepuce was slit up on a director, exposing the glans, and the meatus was divided for a short distance to allow of the piece of calculus being more easily extracted. The piece of stone was now seized with a pair of urethral forceps, and with a little difficulty removed; two other pieces were afterwards found lodged at the same site and removed. The sound was now introduced, and came in contact with other fragments towards the membranous portion of the urethra; the forceps were again brought into requisition, and nine other pieces of stone were picked up and extracted with considerable difficulty from that locality. The pieces being very sharp-edged, angular, and faceted, and a few of them of considerable size, they inflicted some injury on the urethra in their withdrawal, and some hæmorrhage took place. The largest piece thus removed by the forceps measures half an inch in length, three-eighths of an inch in width, and a quarter of an inch in thickness; it has flat sides and sharp angles, and, completely dried, weighs 8 grains.

When the urethra had been thus cleared, the sound was passed into the bladder, and revealed this organ filled with small stones, giving the sensation that a partially-crushed calculus does to the lithotrite. It was now decided to remove these by lateral lithotomy, as litholapaxy was considered inadvisable, owing to the sacculated nature of the urethra and the injury it had already sustained, which required complete rest, and also the extreme irritability of the bladder, which was firmly contracted on the contained mass of calculi.

Lateral lithotomy was now performed in the usual manner, except that the incision was slightly deviated to include the two principal fistulae, and twenty-three sharp, angular, faceted calculi were removed by lithotomy forceps without difficulty. The total weight of the whole thirty-five pieces removed from the urethra and bladder amounted to 460 grains. The composition of the stones is principally phosphates. The operation took forty-five minutes.

On January 31st, the day after operation, the patient expressed himself as more comfortable than he had been for months. The temperature rose on the evening of January 31st to 103.4°, falling next morning to 99.4°; it again went up to 100° on the evening

Twelve pieces of stone, removed from urethra of Kamal Din.

Twenty-three pieces removed from bladder of same patient on same day, drawn actual size.

of February 1st, fell to 99° on the 2nd, and to normal on the 3rd, where it remained till his discharge from hospital on the 10th, completely cured, and passing water through the urethra.

The illustrations are reproductions of a full-sized drawing of the different pieces.

A RENAL CALCULUS WITH AN UNUSUAL NUCLEUS.

By KENDAL FRANKS, M.D. Dublin, F.R.C.S.I.,
Surgeon to the Adelaide Hospital.

FOREIGN bodies not infrequently form the nuclei of vesical calculus, but it is, I believe, an extremely rare thing—if, indeed, this specimen is not a unique one—to find a foreign body forming the core of a renal stone.

The specimen is composed chiefly of phosphate of lime, with a small amount of carbonate of lime, and in this respect agrees with nearly all the renal calculi which I have myself removed, or which I have seen removed by operation. The smaller fragment (see

Fig. 1.

Fig. 2.

Fig. 2) was accidentally broken off by the forceps during the process of extraction, and it was the separation of this piece which revealed the point of the nucleus, jutting out from the end of the larger fragment, and which is clearly the point of an ordinary sewing needle (Fig. 1).

The patient from whom this specimen was obtained was a young man, aged 22, who first consulted me on October 14th, 1889, for a sinus in the right loin, just above the crest of the ilium and about four inches behind the anterior superior spine of the ilium. This sinus was daily discharging large quantities of pus, sometimes amounting to nearly a pint. He told me that in January last (1889) he went to South Africa. Whilst there he developed a train of symptoms which led the doctors in Durban to diagnose a stone in the right kidney, and for which they proposed an operation. With this object he entered the hospital in Durban. He informed me that several punctures were made previous to operation, on several occasions, in order to ascertain the presence of a stone, but all with negative results. An operation was undertaken and an incision made parallel to the crest of the ilium, about an inch above it, and two inches in length, but no stone was reached, and it is doubtful if the kidney were reached at all or explored. A drainage tube was inserted. He remained in hospital for three months, and about the end of August returned to his native air near Dublin. The sinus never closed in the loin.

When I first saw him he was a fine-looking well-built young man, presenting, nevertheless, the cachectic appearance of one suffering from prolonged suppuration. There were two small openings in the loin—in the scar which I have mentioned. An unusually long probe passed readily in to its full length without meeting with obstruction. In addition to this he had an inflamed swelling in the right groin, which at first I thought was an ordinary bubo, but, on lying down and applying slight pressure with the finger, its tenseness disappeared, and it became evident that it communicated with the suppurating cavity in the loin. The urine was quite healthy, and presented no deposit on standing. I advised him to undergo another operation, and to this he at once consented. It was performed on October 18th.

When he was under the influence of the anæsthetic and placed in the proper position, I made the usual incision in such cases, beginning a little below the twelfth rib, and just external to the erector spinæ muscle, and terminating a little above and behind the anterior superior spine. It was five inches in length, and

was well above the original incision, neither the extent nor the position of which commended itself as being calculated to attain the object in view. I soon reached a great deal of dense cicatricial tissue, and, dissecting through this, came upon the deeper parts of the sinus, which I followed up. I soon came upon a large cavity filled with pus, situated immediately behind the right kidney, and in this cavity I found the stone.

The posterior surface of the kidney could be felt, and, as it appeared quite healthy, it was not further interfered with. The abscess cavity was found to have burrowed downwards and forwards, and a probe passed down into this pouch could be felt in the swelling in the groin. This was undoubtedly the result of the erect position he had maintained for a long time. A drainage tube was inserted in the loin and the wound well irrigated and dressed in the usual way. The patient made an excellent recovery; the wound quickly cicatrised, and the old sinus, which had been thoroughly scraped and cleaned, has been closed for nearly three weeks. I found it necessary, however, about four weeks after the operation, to make a small opening in the groin, from which a very small quantity of pus escaped.

Now, the interesting question in this case is, How did the needle get into the kidney and thus induce the formation of a stone? When I first discovered the needle, it was a few days after the operation. At first it occurred to me that it might have been left there during the operation in May; but this hypothesis is untenable on two grounds: first, because the point of the needle shows that it is apparently an ordinary sewing needle and not one of those usually employed by surgeons; secondly, because the operation in May was undertaken on account of the diagnosis of renal calculus having been made; and, although no stone was then found—owing, I believe, to the position and limited nature of the incision then made—still, as the later operation has shown, the stone actually did exist, and in its centre, forming the nucleus, is the needle in question. Dismissing, therefore, this hypothesis, I carefully questioned the patient, but he could not remember having in any way introduced a needle into his body. However, he related the circumstance to his sister, and she at once reminded him that in 1872, when he was a little boy, he had been sent home from school and was kept home for some days because he had swallowed a needle. As, however, it failed to produce any symptoms or to give rise to any sort of annoyance, no more was thought of it, and he was sent back to his studies.

Now, the probable solution of the problem seems to me to be this: That in the well-known erratic peregrinations of needles introduced into the body, the one in question, after wandering about for a time, found a resting place in the cortical portion of the right kidney. It there became encrusted by the deposit of phosphates from the urine and so formed a stone, and this very encrustation served to protect the needle from itself being destroyed by a slow process of oxidation. Evidently it gave rise subsequently to considerable irritation; an abscess formed around it in the renal substance, and this, bursting into the cellular tissue behind the kidney, gave rise to the perinephritic abscess which we discovered at the operation, and in which this calculus lay.

The stone weighed 3.04 grammes, and Dr. Piel, assistant to the Professor of Chemistry, R.C.S.I., informs me that it is composed of:—

Phosphate of calcium ...	...	...	69.83
Organic matter and water ...	...	...	16.65
Carbonate of lime, etc. ...	...	...	13.52
			100.00

TEMPERANCE TEACHING FOR THE YOUNG.—The bazaar which Princess Louise will open in Exeter Hall next Monday has for its aim the raising of funds, additional to £10,000 already received, in aid of a systematic course of instruction in schools and public institutions for the young on the nature and properties of alcoholic beverages, organised by the Band of Hope. It is estimated that rather less than 2,000,000 children are at present being taught in this way, so that some 8,000,000 more, between 7 and 15 years of age, are without the means of such instruction. Whatever opinion may be held on the use of intoxicants by adults, there is a general consensus of medical opinion that healthy children are much better without alcohol in any form.

THE death is announced, at the age of 73, of Dr. William Heath Byford, for many years Professor of Obstetrics and of Gynecology in Rush College, Chicago.