with a man of whom I have heard to-day, and of others of whom I have read or heard.

And if this procedure is contrasted with the open method, even if we were to admit that there was an equal absence of risk in both the saving of time and stress of a long operation is great and well worth considering. As to the adjustment of the fragments, there is no more difficulty in one than the other, and as to passive movement and massage, they can be begun at once after the subcutaneous method, while with the open method the healing of the wound must be first allowed to take place.

I have lately made a needle specially for this operation, which is a great improvement on the old ovarian pedicle needle formerly used. It is safer not to break, and its eye is so drilled as to carry the loop of stout wire much more easily than the older needle. It is represented in Fig. 1 as copied from my own manufacture by Krohne and Sesemann, Down Brothers, and Meyer and Meltzer. In using it I find it convenient to make a little short loop on each end of the silver wire before the operation is begun. If this is done the end can be hooked in the needle at once, and the loop is buried in the needle, and offers no resistance to the withdrawal of the latter, which a large loop of thick wire would do.

It should be remembered that patients who have once broken their patella are liable, whether operated on or not, to attacks of synovitis on over-exertion of the joint. If such an attack takes place some months after the bone has been wired it might suggest to the inexperienced that the wire was giving trouble. But this is not so, as I have seen in two or three cases. With a little rest the condition is quite relieved. One can hardly expect after so severe an injury as that which fractures the patella, that there should be in all cases a complete re-establishment of the vasomotor balance in the circulation of the synovial membrane.

A SUCCESSFUL CASE OF PYLORECTOMY.

By JAS. A. ADAMS, M.D., F.F.P.S.G.,
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Excision of the pylorus has not been very successful in Scotland, if one may judge from the published records. Indeed, I have not been able to find any account of a patient who has survived the operation many days. In publishing this case I hope to bring before surgeons the desirability of performing the radical operation, in preference to the palliative and at best temporary procedure, in which the growth remains untouched. Such operations give at most a few months', often less, relief to the patient, and by improving his condition hasten the growth of the tumour, which ultimately kills him.

It may be urged that this short time is worth more to the patient than his chance of recovery from the major operation; and that is true as the statistics stand at present; but as our results are much worse than those of some Continental operators, the presumption is that our methods are at fault. It therefore behoves us to improve these methods so as to obtain success in what is, after all, the more scientific operation, and if the history of this case stimulates others to its performance, its publication will have been warranted.

On July 1st, 1895, I was consulted by Mrs. C. regarding an abdominal growth she had noticed about six months previously. She stated that her age was 56 years, although her emaciated appearance made her look at least fifteen years older. She did not complain of vomiting, but stated she felt constant nausea, with disinclination for food, and had lost flesh very rapidly. She was exceedingly feeble.

The growth, which was the size of a small orange, could be moved freely, and the stomach was much dilated. On July 19th, assisted by Drs. McGregor, McPherson, and Findlay, I made a straight central incision, 3 inches long, above the umbilicus, and drew out the growth, which proved to be a carcinomatous tumour of the pylorus. The swelling was not adherent to the other viscera, and I was unable to detect any enlarged glands under the liver, or in the vicinity of the lesser omentum, or pancreas.

The tumour was dragged well out of the wound, and the abdominal cavity protected with natural sponges, wrung out

of warm boracic solution. An assistant grasped the stomach and duodenal sides of the growth, between his forefinger and thumb, compressing the viscera to prevent the escape of any contents. The knife was then passed lightly round the pylorus, at a distance of 1 inch from the edge of the growth, dividing only peritoneal and muscular coats. These were reflected, about an eighth of an inch, in the direction away from the growth, and the mucous membrane divided with scissors, as far from the tumour as possible. Immediately prior to division of the mucous membrane, the portion to be excised was clamped. Several vessels in the mesentery were ligatured with catgut, and the wound well swabbed with warm boracic solution. The stomach cavity was flushed out with the same solution, and a few fragments of food removed.

The upper portion of the stomach wound was stitched with a continuous catgut Lembert suture, until the lumen corresponded to that of the duodenal opening. The assistant, grasping the two wounds with forefinger and thumb, brought them into apposition, and they were stitched up with a similar suture, which only included the serous and muscular coats. This part of the operation was greatly facilitated by the previous free removal of the mucous membrane from the edge of the wound. The peritoneum was carefully stitched with catgut, in the lesser curvature of the stomach, and a flap of omentum lightly stitched over the gastro-duodenal wound. The abdominal cavity was not flushed. The parietal wound was closed with buried and superficial sutures. The operation took exactly sixty minutes, and chloroform was used.

For thirty-six hours nothing was administered by the stomach, but the patient was permitted to wash her mouth with warm water containing a few drops of brandy. Rectal feeding was commenced at once, two ounces of milk and half an ounce of brandy being given every four hours. From the 19th to the 21st the patient vomited twice, but this ceased after administration of 10 grains of bismuth powder.

On the 22nd, during a period of twelve hours, she had 1 ounce of Valentine's meat juice; on the 23rd, 4½ ounces of Valentine's juice; on the 24th, 7 ounces of raw beef juice, with Valentine's juice; on the 25th, 33 ounces of milk, barley water, raw beef juice, and Coleman's wine. From July 25th until July 30th she had daily an average of 50 ounces of fluid, after which date she was put on ordinary diet. The bowels moved twice on July 25th, once on the 26th, and twice daily until August 13th, when the record was discontinued.

On July 30th the patient became slightly delirious, but this condition immediately ceased on reducing the daily allowance of alcohol. The parietal wound was dressed on the fourteenth day, when the temperature rose for the first and only time from normal to 101.2° F. No cause for the rise was detected, and the temperature fell again to normal in four hours' time. The patient was allowed up on August 21st, and went to the country on September 11th.

Unfortunately, prior to the operation, no record was made of her weight, but she has markedly increased in weight and gained strength until the present date. From the date of operation she has not had a vestige of nausea, flatulence, or eructation of any kind.

Tumour.—The growth, which involved the entire pylorus, was especially prominent on the posterior wall. It was epitheliomatous in character, and occluded the pyloric opening, reducing it to the size of a No. 12 catheter.

REMARKS.—While gastro-enterostomy is an easier operation and less fatal than pylorotomy, and while the immediate effect upon the patient is very striking, it is only palliative, and the longest period that life can be prolonged is about a year. After complete excision of the pylorus the results are very different. Thus Wölfler had a case which lived in comfort for five years and a quarter, and although the glands in the portal fissure were found carcinomatous, the stomach remained free from disease. Rydygier has also reported a case which lived two years and a-half, and was entirely free from complaint for two years. These cases, however, are excelled by Kocher, who operated five years and a-half ago on a lady who is at the present moment in the enjoyment of perfect health. I am indebted to this latter surgeon for an interesting summary of the cases recorded on the Continent, and for many valuable hints in his recent work on *Operative Surgery*. It will be noted that I did not use clamps unless on

the excised portions; that continuous sutures were employed; and that catgut was used instead of silk. The mucous membrane was also left unstitched. While clamps are strongly recommended by Kocher and other surgeons, and while I might not hesitate to employ them where there was difficulty in approximating the incised portion of intestine, I think I have seen paralysis, with consequent delay in healing, induced by their use. That the continuous suture is alone permissible I have no doubt whatever, as it is rapidly applied, and is much more likely to induce perfect approximation than the interrupted. I used the ordinary catgut, which I have always prepared, to resist the action of the tissues for three weeks, and I am of opinion that leakage from stitch abscess is less likely to follow with gut than with silk.

In conclusion, I would suggest that rapidity of operation—in this case sixty minutes—contributes enormously towards a successful result. This is another advantage of the continuous stitch. The diminution of shock by a rapid operation, with the small amount of chloroform absorbed, renders the patient less liable to post-operative sickness and its attendant complications.

VALERIANATE OF ZINC IN HAY FEVER.

By PETER H. ABERCROMBIE, M.D.,

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THE following notes of a case of typical hay fever, in which the administration of valerianate of zinc was followed by a cure, to all intents and purposes, may prove interesting.

The patient, a strong, healthy young man, aged 32, a chartered accountant and stockbroker, consulted me early in 1893, when I learned that he first suffered from symptoms of the disease when he was 16 years of age, and that ever since then he had suffered regularly every summer, with greater or less severity according to the weather. The attacks began about the middle of June, and lasted about three weeks or a month, the duration of the seizures depending on the dryness of the summer. The patient, a most intelligent and observant man, has studied the whole matter very thoroughly, and is of opinion that the cause of the trouble in his own case is the emanations from grasses, and especially hay, when seeding.

Sometimes the attacks were so severe as to incapacitate him for business, and to necessitate confinement within doors. When at the seaside or in town there were never any symptoms or signs of the disease. He has two business offices, one in a large commercial city in Scotland, and the other in a large town some seven miles distant. Between these two places he has to travel at least twice a day. The country through which the railway runs consists mainly of fields, many of which in summer time contain hay, grasses, etc. It has frequently happened that he has left one station feeling perfectly well, but has had an attack in the train when passing the fields, which has disappeared when he reached the other station.

Unfortunately, I have never had an opportunity of examining this patient's throat and nose. Prior to the employment of the treatment I suggested, the only remedies used were local. These sometimes relieved the symptoms, but only for a very short time. Several medical men were consulted, and they advised him to be near the sea during the usual time of the attack. No internal medication was advised.

There is a history of nervous affections in the family, and the patient himself is distinctly neurotic. It was this which led me to prescribe valerianate of zinc as a nerve tonic to "brace up" an unstable nervous system.

Early in 1893, I prescribed for my patient as follows: 1. Valerianate of zinc pills, 3 grains in each; one pill to be taken three times a day after meals; to be commenced a full month before the onset of the attack was expected, and to be continued for at least a month after the usual time of onset. 2. As local palliative measures, if required: (a) a 5 per cent. watery solution of hydrochlorate of cocaine, to be used as a spray to the nose and throat; and (b) a snuff composed of bismuth, morphine, etc.

In the summer of 1893 he wrote: "I took the pills but I also kept at the seaside during the time I usually had the trouble, so I could not say positively whether it was due to

your prescription or to the precaution I took of being near the sea that I had almost no hay fever."

On August 20th, 1894, he wrote thus: "I promised to let you know how I fared this summer with my annual enemy, hay fever. I took the pills as directed and used no other remedy whatever, with the result that I had scarcely even an indication of the disease. This year I did not go near the seaside, and the result has been as I have stated. This leaves no doubt in my mind that the pills are a positive preventive of the disease, at least so far as I am concerned."

I received another letter from him on July 24th, 1895, from which I quote the following: "I am very glad to be able to report that I had almost no trouble with the hay fever fiend this summer. Only one day for an hour or so I had some of the symptoms. You must remember, too, that this summer has been a specially trying one for those troubled with the disease, the hot dry weather favouring a development of the symptoms. There is no doubt whatever that the pills are a certain preventive" (in this particular case).

A BULLOUS ERUPTION FOLLOWING THE ADMINISTRATION OF ARSENIC.

By HERBERT CAIGER, M.B.LOND., F.R.C.S.ENG.,

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A LADY, aged 48, rather delicate and anæmic, consulted me on May 14th, 1894, on account of sacral pain and debility. I prescribed a mixture containing ferri et ammon. cit. gr. vii, liq. arsen. $\mathfrak{m}$ v, potass. iodid. gr. vi, sp. chloroform. $\mathfrak{m}$ v, to be taken three times a day.

On May 21st I was called to visit her on account of an eruption on her hands. There was some general œdema of both hands, with redness; and on the palms and fingers were numerous small deeply imbedded vesicles. The eruption was preceded by, and associated with, sensations of irritation and tingling, which became almost intolerable, and prevented sleep. The first symptom had been noticed two days before I visited her, that is, four days after commencing to take the mixture above mentioned. During the next week the vesicles enlarged and coalesced, forming bullæ, some of them three-quarters of an inch in diameter. Some of these ruptured spontaneously; others were opened with scissors; the contents of the vesicles and bullæ never became purulent, but consisted of an almost clear serous fluid. In the course of about three weeks the skin of the parts affected was exfoliated or cut off. The new red skin was dry from the first, never discharging like an eczematous surface. The patient was completely unable to use the hands for nearly a month, but at the end of that time they were practically well, except for slight tenderness and stiffness. The eruption affected the whole palmar surface of both hands; and the fingers were affected on the dorsal surface of the last two phalanges, as well as on their sides and their whole palmar surfaces.

When first consulted about this eruption I considered the question of its possible causation by the arsenic or iodide which had been given. The definite and limited symmetrical distribution of the lesion seemed against this view of the case. Moreover, there was the history of an exactly similar eruption about two years previously, which was attributed to anæmia, etc. Thus I came to the conclusion that the drugs given could not have caused this attack. I had never seen any eruption like it; but on consulting Crocker's *Diseases of the Skin* it appeared to me that the rare disease described there under the name of "pompholyx" corresponded in almost every particular with the appearances observed. The character and distribution of the eruption, and further, the fact of recurrence, were all in agreement with the view that the case was to be placed under this heading. Accordingly I diagnosed the case as one of pompholyx, and ventured to predict to my patient that the attack would probably recur.

On March 27th, 1895, I prescribed for the same patient a mixture containing liq. arsen. $\mathfrak{m}$ iij, potass. iodid. gr. v, sp. chloroform. $\mathfrak{m}$ iv, to be taken three times a day. She was then convalescent after an attack of typhilitis, and was complaining of shifting "rheumatic" pains. Four days later I was again called to see her on account of a similar attack to the one already described. The hands were in precisely the same