neighbourhood of the solar plexus or pancreas. I could also eliminate the liver, spleen, and kidneys. Finally, I came to the conclusion that I had to deal with some functional disease of the stomach, but the remedies I tried seemed of no effect. All I appeared able to do, until the incidents of the beef-tea, aerated water, and cold water gave me the clue, was to keep the pain down with hypodermics; these incidents decided me to give much larger doses of an antacid than I had hitherto done. The effects of drachm doses of the antacid were simply marvellous, yet any less dose had little or no effect; other antacids in similar large doses were given, but none of them acted with the rapidity or gave the same relief as the bicarbonate of soda. On two occasions whilst taking the antacid the patient vomited a large quantity of watery fluid, sour smelling, each time the ejected matter being in much larger quantities than the fluid previously imbibed. The action of the sulphonal appeared not so much to give sleep as to act as an analgesic, and thus allow natural sleep, for if it was left off for a night, or diminished below ten grains, sleep was obtained, but was more broken by attacks of pain, and more doses of the antacid had to be taken in the night, but not during the following day. The action of the carbolic acid was, no doubt, an analgesic and antiseptic, preventing the fermentation that was probably the cause of the abnormal quantity of acid. When I first saw the patient the same doses of the acid appeared to have no effect, yet when given later its action was manifested after the first day. One other point of interest about the case was that opium, chloral, cannabis indica, and belladonna, whether hypodermically or by the mouth, practically failed to have any effect on the pain, and if any it was only of a very temporary character.

Las Palmas.

GASTRO-ENTEROSTOMY.

BY T. KILNER CLARKE, F.R.C.S. ENG.,
HONORARY SURGEON TO THE HUDDERSFIELD INFIRMARY.

THE following case of gastro-enterostomy, though unsuccessful, is more illustrative of the difficulties of the operation and its after dangers than the successful one I published some few months ago, the subject of which is still, ten months after the operation, in the enjoyment of good health.

Mrs. S—, aged thirty-six, a spare, dark-eyed woman, had been suffering from gastric troubles for a year, when, in consultation with Mr. Haigh of Meltham, her medical attendant, I first saw her on May 6th, 1890. During this time she had suffered much from vomiting, and had had several attacks of hæmatemesis, at times considerable in amount. For the few days previous to my visit everything she had taken was rejected. There was a tumour the size of an orange in the situation of the pylorus—i.e., on the right edge of the mesial line and extending down to the level of the umbilicus; the stomach was small, but the other organs of the body appeared healthy. The case seemed to us to be a very suitable one for either pylorotomy or gastro-enterostomy. Using a mixture of chloroform (one part) and ether (two parts) as the anæsthetic, administered by Dr. Scougal, and assisted by Mr. Haigh and Mr. Marshall, I operated on May 13th, 1890. A three-inch median incision reaching as far as the lower edge of the umbilicus exposed the lower border of the stomach and the great omentum. The tumour, which was found to be the enlarged and thickened pylorus, was firmly adherent to everything in its immediate neighbourhood. Its size and adhesions and the contracted state of the stomach rendering pylorotomy impossible, I proceeded to the alternative operation of gastro-enterostomy. The jejunum not being visible, I pushed aside the great omentum, and, turning up the lower border of the stomach, saw it lying beneath the transverse meso-colon and arising from the spine on a level with the umbilicus. Making a rent in the meso-colon I brought up the intestine, emptied some six inches of it, and isolated the emptied portion from the rest of the gut; then dropping the jejunum back into the abdomen I made an incision into the anterior wall of the stomach, an inch in length, parallel to and about an inch and a half above the greater curvature, and inserted the calcified bone plate. The second plate was then fixed

in the jejunum. On attempting to bring the two plates into apposition so as to tie the corresponding threads, I found it could not be done, as the contracted size of the stomach and the pyloric adhesions prevented my bringing the stomach wall sufficiently outside the abdomen. I therefore took out the stomach plate, sewed up the incision with a double row of Lembert sutures of fine silk, made a new incision in the posterior wall of the stomach, introduced the plate afresh, and readily brought it into close apposition with the jejunum plate. The corresponding threads were then tied and the abdominal wound closed. A towel folded to form a pad was bound firmly over the dressings and removed after forty-eight hours. For three weeks after the operation the pulse kept under 100, and 99.6° was the highest temperature. The progress of the case was briefly as follows.—First day: Very little pain; frequent slight hæmatemesis. Nutrient enemata of beef-tea and brandy every four hours.—Second day: Hæmatemesis going on; very good night; no pain.—Third day: Very good night; vomited every two or three hours till 2 P.M., when distension came on with pain in the chest and difficulty of breathing. This was relieved by fomentations and a clyster of glycerine (two ounces). After this the patient retained wine whey in small quantities and a little hot tea.—Fourth day: Wine whey and chicken broth.—Fifth day: Vomited several times; a good deal of pain in left side of the abdomen, was relieved after the application of a mustard plaster, and the appearance of some offensive discharge from the lower end of the abdominal incision. The wound was opened a little, and a couple of short drainage-tubes were introduced at its upper and lower end.—Sixth day: No vomiting for the last three days; wound discharging freely. Having fluid food and a nutrient suppository night and morning.—Eleventh day: No sickness; appetite very good; was given boiled mutton; upper tube removed.—Twelfth day: Second tube removed; slight vomiting at 8 A.M., but afterwards very well up to afternoon, when the artificial opening between stomach and intestine seemed to close suddenly. While being fed the trickling sound of fluid passing through the opening which was distinctly audible to anyone standing by the bedside whenever the patient took any fluid food and the patient's sensations of it abruptly ceased. At 10 P.M. she vomited some twenty ounces of fluids, and from this time till her death on the thirtieth day after her operation all food taken was rejected. No necropsy was permitted, and the cause of the sudden closure of the artificial opening must remain uncertain. In two at least of the failures of this operation closure of the opening has occurred. To prevent this it would be well to sew together by a continuous fine silk suture the cut edges of the serous and mucous coats of the incised viscera, and to make larger incisions into the viscera. Operators by the old method made incisions two inches in length.

Huddersfield.

ACUTE INTESTINAL OBSTRUCTION BY INTERNAL STRANGULATION; LAPAROTOMY; CURE.

BY EDWARD J. CAVE, M.D. LOND.,
SURGEON TO THE CREWKERNE HOSPITAL.

THE operative treatment of intestinal obstruction has of late years been abundantly discussed, and the lines of practice are now pretty definitely laid down. The tendency has been more and more in the direction of early surgical interference, so that now few surgeons would countenance delay longer than is necessary for a confident diagnosis; and even in difficult and obscure cases of acute abdominal trouble, where the diagnosis is still but a matter of probability, far greater disaster results from procrastination than from early operation. An experience of six years as resident medical officer in provincial hospitals has brought a fair number of patients suffering from acute obstruction under my notice, of whom some have died without surgical interference, and two have recovered when recovery seemed past hope; while of those submitted to laparotomy for obstruction from any cause whatsoever, not one has recovered save by the formation of an artificial anus at the anterior abdominal wall. I believe this disastrous experience to be by no means un-