meal, the patient is liable to regurgitate. As to the use of the dam, its employment is possible only in the front of the mouth, and then a prop is used to keep the patient from closing his mouth involuntarily. The restlessness and slow response to orders on the part of the patient are both caused by the same thing, the slipping of the patient from a state of analgesia into very light surgical anesthesia. Here also the patient gives an exaggerated response to pain, even though he is not conscious that anything is being done to him. It is still possible to work under these conditions if needs must, but it is easily seen that the performance of delicate operative procedures is rendered difficult, if not impossible. The operator tends to hurry his work, and if a cavity is to be prepared, one is liable to drill and forget that, though the patient feels nothing, the pulp is being irritated and its vitality endangered. Excessive salivation is another adverse factor in analgesia. The average patient is in a state when he does not know he is salivating so profusely, and the operator must use a saliva ejector, bend the patient forward over a kidney basin or lighten the analgesia to permit the patient to swallow his saliva. The first two interfere with the work, and the last upsets the delicate balance of the analgesia, requiring a fresh adjustment of the machine. A minor complication is the sense of suffocation of which some subjects complain when they are taking analgesia for the first time. In these cases it is up to the operator to forewarn the patient and tell him that this sensation will disappear after the first few breaths of gas. There are some patients who, upon experiencing this for the first time, refuse to go any further. With these patients it is useless to try further. For this type of patient our choice is local or topical anesthesia. As to interference with the work it must be admitted that the tubes used to convey the gases to the patient will be found to get in the way at times, and in our care to keep the nosepiece in place and operate at the same time, it is possible to force the nosepiece up against the nares and cause the patient's oxygen or air to be cut off. It will be noted that some machines deliver the gases through tubes which run across the cheek of the patient. These interfere considerably with the work in and about the upper posterior teeth.

The use of patent hand control devices, in the author's opinion, is not usually recommended, since the average patient in a state of analgesia is unable to handle the control properly.

Postoperative Venous Thrombosis and Pulmonary Embolism: Analysis of Eighty-Eight Cases. O. S. Culp, Baltimore. *Johns Hopkins Hospital Bulletin,* 67:1 (July) 1940.

CULP ANALYZES eighty-eight cases of pulmonary embolism encountered at the Brady Urological Institute during the last twenty years. There were thirty-two cases of fatal embolism proved at necropsy, eleven of presumptive fatal embolism in which necropsy was lacking, twenty-one of pulmonary infarcts from which the patients recovered, four infected pulmonary infarcts recognized at necropsy and twenty cases with incidental pulmonary infarcts discovered at necropsy. The majority of the thirty-two cases of proved fatal pulmonary embolism occurred in

private patients more than 60 years of age, after operations performed under spinal anesthesia. Continuous intravenous infusions appeared to be a factor in producing thrombosis in the lower extremities in four instances. Marked variations from normal weight, excessive drop in blood pressure during operation, marked abdominal distention, postoperative instrumentation and organic circulatory disease, in individual cases, probably were contributing factors. In only 18.8 per cent was the thrombosis recognized clinically. Any untimely activity seemed to be capable of dislodging thrombi. Analyses of the eleven cases of presumptive fatal pulmonary embolism revealed essentially the same contributing and the same nonessential factors as did the foregoing cases. The majority of the twenty-one nonfatal pulmonary infarcts occurred during the past ten years in private patients more than 60 years of age given spinal anesthesia. Continuous intravenous infusion was directly responsible for two cases. Marked drop in blood pressure during operation, postoperative abdominal distention, severe wound infection and circulatory disease were contributing factors in individual cases. Only 23.8 per cent of the patients presented clinical evidence of thrombosis. Some of the small emboli may have originated in the pelvis or operative area. The four patients with fatal infected pulmonary infarcts after perineal prostatectomy performed under caudal anesthesia were undernourished and more than 60 years of age. Severe wound infections were present. Associated circulatory disease, marked drop in blood pressure during operation and persistent abdominal distention may have been factors. All the patients had a clinical course simulating pneumonia. Thrombosis of the leg was diagnosed clinically in only one case and was proved at necropsy in two. The emboli in the other two cases may have come from the operative area in the pelvis. The various causes of death in the twenty cases of small pulmonary infarcts recognized at necropsy and which apparently played no part in the fatalities were pyelonephritis and uremia, pneumonia (lobar and lobular), coronary occlusion, generalized peritonitis, septicemia, heart failure and cerebral hemorrhage. Thrombosis of the lower extremity was observed clinically in five cases and demonstrated in the leg at necropsy in six, and in the pelvic veins in four; in ten the source of the embolus was not demonstrated at necropsy. The following prophylactic measures are recommended: (1) Continuous intravenous infusion should not be used unless absolutely necessary. (2) Every effort should be made to prevent peripheral venous stasis by adequate treatment of associated circulatory disease, fall in blood pressure, postoperative abdominal distention and by the elimination of unnecessary pressure on peripheral vessels due to strapping and the like. (3) Wound infections should be minimized by careful aseptic operative technique and mild bacteriostatic agents. Drainage of postoperative abscesses should be established immediately. (4) The greatest need is the recognition of thrombosis in the lower extremity. The legs should be measured on admission, before operation and before patients get out of bed. (5) Untimely activity should be avoided in the presence of thrombosis. Absolute bed rest is the most conservative and most practical treatment for thrombosis and prevention of embolism.