than one other filling be necessary, and then only in the longer cases. There is no hazard of frequent opening of an ether can or of the filling port. Control of the drip is very delicate, yet rapid addition of ether is possible.

The device is made with the ether container at right angles to the vaporizing chamber for those who keep the canister horizontal, and at a 60 degree angle for those who let the distal end of the canister rest on a pillow. It may be coupled by its slip-joints between the face-piece and canister, or between the canister and the breathing bag. When the former location is employed, care must be taken to avoid spilling liquid ether into the face-piece, especially from the right angle model. The roll of wire gauze in the vaporizing chamber is not a guarantee against such an accident. The more distal position of the dripper has been found more than adequate, despite the theoretical advantage of the greater heat proximally. The whole apparatus is easier to balance when the dripper is between the canister and the bag.

CASE REPORTS

HYPERPYREXIA FOLLOWING THE ADMINISTRATION OF PENTOBARBITAL.

Numerous cases have been reported illustrating allergic reactions following the use of the barbiturates. This report concerns a case in which hyperpyrexia followed the administration of pentobarbital (nembutal).

The patient was a 32-year-old woman who was admitted to the hospital as an obstetrical patient, gravida 2, para 0. Her past history revealed a miscarriage eighteen months prior to admission, which was followed by prolonged chills, fever and acute
illness. Between 8:20 p.m. of the evening of admission and 5:50 a.m. the following morning, she received nembutal grains 6 and scopolamine grain 1/100. She was delivered spontaneously at 8:00 a.m., at which time her temperature was 101.2° F. It dropped to normal that evening. The following morning she had two chills. The first occurred at 6:30 a.m. and lasted about fifteen minutes; the second occurred one hour later and lasted about thirty-five minutes. By 8:00 a.m. her temperature had risen sharply to 105.3° F. At this time she was given sodium phenobarbital grains 2 to control restlessness. Physical examination disclosed that the patient's abdomen was markedly distended. There was audible peristalsis, and there was tenderness over the fundus. The pulse rate was 138, but the remaining findings were essentially normal. Prontylin was administered. The following day she received a transfusion. Cultures were taken of the urine and from the cervical canal. Both of these were later reported negative. She received nembutal grains 1 1/2 each night at bedtime to induce sleep. On her fifth day in the hospital she received a second transfusion. The following morning some jaundice was apparent, and the medication with prontylin was discontinued. That evening she received her last dose of nembutal, which had become ineffectual and was replaced by barbitual soluble. The following day her temperature dropped to normal and remained there until her discharge twelve days later.

Upon discharge it was noted that the jaundice and fever had subsided after the administration of prontylin was discontinued. A diagnosis of pelvic inflammatory disease of nonspecific origin was made. It was also believed that the patient had had a toxic hepatitis associated with a hypochromic anemia due to the administration of prontylin. The prontylin was discontinued on her fifth day postpartum, but the elevated temperature continued for two days and did not recede until the day following the discontinuance of her medication with nembutal.

This patient was well until two years later when she was again admitted and a diagnosis of appendicitis was made. She was given nembutal grains 3, scopolamine grain 1/150 and morphine sulfate grain 1/6 preoperatively. An acutely inflamed appendix was removed under cyclopropane anesthesia. There was no evidence of any previous infection in the pelvis, and the wound was closed without drainage. She was returned to her room in good condition. Fifteen hundred cc. of physiological saline was administered intravenously. About five minutes after its completion, the patient had a chill and her temperature began to rise rapidly. By 7:00 o'clock that evening it was 106° F. At this time she was practically comatose and could not be aroused. Carbon dioxide 15 per cent and oxygen 85 per cent were administered by inhalation. Her chest seemed clear and her abdomen soft. The unusual feature was that although during the night her temperature remained around 105 F, her urinary output was 3,000 cc. in five hours. The following morning her temperature dropped to 103 F. She was distinctly better but had obvious difficulty breathing. She seemed to know the words she wanted to say but could not say them. Physical examination at this time disclosed that her deep reflexes were markedly diminished and all voluntary movements were inefficient. Her pupils were pinpoint, her abdomen soft and her chest clear; blood pressure was 100/75, and the pulse rate was 120 per minute. On the morning of the second day after operation her temperature was normal. Her postoperative course was uneventful from this time on with the exception of the presence of some amnesia, which was still present in a slight degree at the time of her discharge.

**Comment**

Careful study of the sequence of events leads one to realize that her untoward reaction at the time of her delivery was due to the administration of nembutal rather than prontylin. Because this fact was not appreciated she received nembutal prior to her appendectomy and the syndrome was duplicated. It is significant that she did not have the same susceptibility to barbitual soluble. The patient and her family were warned that she should not be given nembutal in the future.

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