bling mucus, not bloody; lungs, spleen, liver and kidneys engorged and of dark color, more especially in dependent portions; large veins filled with dark liquid blood, no clots found. The large vessels about the heart were carefully tied. The heart was small and soft, but otherwise apparently normal, and quite empty. The uterus was removed with its appendages and the upper part of vagina; the os uteri was entirely plugged with mucus, not bloody, and never having been disturbed; uterus about four and a half inches long and three inches wide at the fundus; the membranes were unruptured, and containing liquor amnii and a foetus measuring from head to caudal curve one and three-quarters inches; the umbilical cord was not spiral; the interior of the uterus showed no marks of violence; the right ovary contained a distinctly marked corpus luteum; other organs normal in appearance.

Portions of the brain, liver, kidney and the stomach complete were sent to Dr. William B. Hills of the Harvard Medical School for examination. The following is his report:

"I have completed the analysis of the organs of ——— and do not find anything to account for death. The stomach contained one-half ounce of semi-fluid brownish contents which from microscopic examination were found to be composed in great part of remnants of food, namely, fat, starch, partly digested muscular fibre and more or less vegetable tissue the exact nature of which could not be determined. The contents of the stomach contained also a small amount of sulphate of iron. The presumption is, I think, that this was taken in the form of a pill, with perhaps aloes or something similar. I think I am right in believing that such pills are sometimes taken under the impression that they will cause abortion. At any rate I have met with two cases in which such pills (containing sulphate of iron) have been administered by abortionists for this purpose. I do not think, however, that there is the slightest reason for supposing that the sulphate of iron was the cause of death. The amount present was small, and there was no evidence of any inflammation of the mucous membrane of the stomach.

"Chemical analysis of the stomach and contents showed the absence of all the *ordinary* poisons. The tests for most of the substances employed as abortifacients are not so well-defined as those for the ordinary poisons, and for detecting them we have to rely to a considerable extent on the microscopical examination, being aided at times by the odor. I did not, however, discover anything on microscopical examination which suggested the use of any abortifacient which may be detected in this way, and there was no indication to the sense of smell of any of the essential oils, neither could any essential oil be detected by chemical analysis.

"I think I should add, in order to make the report as complete as possible, that at one point on the mucous membrane of the stomach, was a slight brown deposit, and a portion of the deposit was sulphate of iron; I could not determine the nature of the remainder. There was nothing characteristic about it when examined beneath the microscope, and analysis threw no light on its nature. I think it was some vegetable substance; and there is a large number of these for which there are no known tests. It was the occurrence of this deposit, which led me to think that the sul-

phate of iron was administered in pill with some organic substance."

"(Signed) WILLIAM B. HILLS."

After careful deliberation upon the facts of this case, it was thought best to submit the following return, "that ——— came to her death by natural causes, the exact nature of which was not disclosed, autopsy and chemical and microscopical analysis giving only negative results."

Though we were unable to arrive at an exact diagnosis in this case which we could record with a conviction of its absolute accuracy, several theories of the cause of death came up for consideration.

First, the theory of poisoning, whether accidental or intentional, would seem to have been set aside by the examination of Dr. Hills, and his report lends weight to the idea that she was only using ordinary and simple means to induce the appearance of her menses, such as the aloes and iron and the warm water sitting-bath.

Again, our history of her position and condition when found, rests entirely upon the evidence of one person, who might possibly be an interested party. The circumstances, however, seem to corroborate his statements. Yet, if in the face of his statements and of the circumstances, we were to consider the possibility of death by smothering and arrange the evidence in order, we should find fluid blood in the larger veins and sinuses; lungs, spleen, liver and kidneys engorged; no clots; bubbling mucus, not blood-stained, in the trachea; no blood about the mouth and nostrils; heart quite empty (even the right heart); and no appearance of subpleural ecchymoses—a condition that would hardly warrant the diagnosis of death by smothering.

Taylor describes a mode of death which he calls syncopal-asphyxia, in which the symptoms substantially as above mentioned may be expected, and it seems worthy of consideration whether a pregnant woman, anxious as to her condition, hurrying through her work (to be in readiness to go out with a friend), and immediately sitting in a tub of warm water, may not become faint, and leaning helplessly backwards over the edge of the tub, may she not become so exhausted that nature may fail to rally, even if the body has been placed in a horizontal position before respiration has ceased? I am not prepared to say that this theory of the cause of death is quite satisfactory, yet I have been unable to suggest a theory that meets the circumstances of the case any more fully.

CASES OF URETHRAL STRICTURE, TREATED BY ELECTROLYSIS.¹

BY G. W. ALLEN, M.D.,
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THE following cases of stricture were treated by electrolysis, the method employed being essentially that advised by Dr. Newman, of New York, and Mr. Clark, of St. Bartholomew's Hospital, London. The calibre of the stricture having been measured, a bulb-electrode one or two sizes larger is passed down to it and connected with the negative pole of a galvanic battery. The positive pole is attached to a broad

¹ Read before the Surgical Section of the Suffolk District Medical Society, Nov. 2, 1887.

metallic electrode, covered with wet absorbent cotton (or a sponge electrode), which is held against the abdomen or elsewhere. The strength of the current used should be from three to five milliamperes. In the cases reported it was four milliamperes; a little less in the last case. The electrode will generally pass through the stricture within half-an-hour, only the gentlest pressure, if any, being exerted. The operation is painless. Very little after-treatment is indicated. In these cases ten grains of quinine were given after each operation, and the patients were advised to keep quiet for a day or two. After an interval of a week or more, not less, the urethra is examined to ascertain the result of the operation.

CASE I. G. T., twenty-eight years old, was first treated for stricture two years ago. His urethra is very sensitive and he has several times had chills after the passage of sounds.

Strictures of a calibre of 19 (French scale) were found at $\frac{1}{2}$ inch and at 2 inches from the meatus, and one of 16 at $3\frac{1}{2}$ inches. The first stricture was treated by electrolysis May 7th. Electrode No. 20 was placed against the stricture and with a current of 4 milliamperes it passed through in 20 minutes. Within 12 hours the patient had a severe chill, with fever and vomiting, and was quite ill for several days. He returned to the Dispensary in about a month, but the result of the operation could not be accurately ascertained, as he had meanwhile been treated by gradual dilatation at the City Hospital. This latter treatment was continued.

CASE II. J. H., fifty-three years old, had strictures admitting 17 at $1\frac{1}{2}$ and $1\frac{3}{4}$ inches. May 24th, electrode 18 passed both strictures in 10 minutes. Although there was no chill, the operation was followed by malaise lasting a week, with considerable local irritation and a copious discharge. The strictures were found to have contracted to 14 and the treatment was abandoned.

CASE III. E. J., thirty-nine years old, had his first gonorrhœa eighteen years ago and symptoms of stricture fifteen years ago. He came to the Dispensary with a chronic discharge and, when examined, was found to have strictures as follows: at $\frac{3}{4}$ inch 22, at $1\frac{1}{2}$ inches 18, at $2\frac{1}{4}$ inches 14. July 28th the middle stricture (18) was electrolyzed and electrode No. 20 passed through in 15 minutes. The operation caused no constitutional symptoms whatever, but some local irritation with increased discharge and painful micturition, on account of which, examination was delayed, and the patient was lost sight of until September 22d, when the stricture operated upon and the one posterior to it were found to be the same size as before, while the anterior stricture had contracted. He had had no treatment meanwhile. Two days later electrode 17 was passed through the narrowest stricture (14) in 20 minutes. This was followed by no constitutional symptoms and by less local disturbance than before. One week later (October 1st), bougie à boule 18 was passed easily through all the strictures. The urethra was very sensitive. October 8th, a bulbous bougie No. 19 was passed, meeting with some resistance at each stricture. Electrode No. 20 passed all three strictures in half-an-hour. October 20th, the strictures were defined by bougie à boule 21, 22 passing with slight difficulty. Another operation was begun, but when, in about 15 minutes, electrode No. 25 had become engaged in the first stricture, the pa-

tient suddenly became faint, and nothing further was attempted. He has not since been seen.

CASE IV. J. C., twenty-eight years old, began to have symptoms of stricture four years ago, and complete retention two years ago. On examination, he was found to have a series of strictures, gradually diminishing in size from 25 at $1\frac{3}{4}$ inches to 11 at $3\frac{3}{4}$ inches and at 5 inches. August 23d, electrode No. 15 was passed to the first of the two narrowest strictures (11) but failed to pass in 20 minutes. This operation was followed by no constitutional symptoms, but by increased discharge, difficult and painful micturition, and a great deal of swelling and induration about the seat of the stricture. The size of the stricture was apparently unchanged. It was deemed advisable to discontinue this treatment and gradual dilatation was substituted. A smaller electrode would probably have been better in this case, but was not at hand.

REPORT ON FOODS, DRUGS, AND THEIR ADULTERATIONS.

BY BENNETT F. DAVENPORT, M.D.

EXAMINATION OF PEPTONE PREPARATIONS.

THE variable composition of the so-called peptone preparations of the market led August Hirschler¹ to make quantitative estimations of them for both the true nutritive peptones or allied bodies, and the less nutritious ones. He precipitated the nutritive peptones by means of phosphotungstic acid and estimated the amount of nitrogen they contained, and he also estimated the total amount of nitrogen in the preparation, and, subtracting one from the other, obtained the amount of nitrogen equivalent to the non-nutritious nitrogenous material present. The following table shows his results:

	Koch's	Kemm'rich	Witte	Weyl	Simon
Total percentage of Nitrogen	8.08	10.04	13.3	12.68	10.15
Percentage of nitrogen from non-nutritious nitrog. Substances	10.7	9.72	9.21	13.9	9.86

According to the investigations of Kühne and Chittenden,² albuminoids digested by means of the pepsin ferment do not form true peptones, but do form hemi-albuminose which is identical with the propeptone of Schmidt Mülheim, and which must be considered as an intermediate product between albuminoid material and peptone. Kühne and Chittenden found in the resulting products from the digestion of albumen with pepsin, four different kinds of albuminoids, but in the peptone preparations of the market said to be made in this manner, no peptone at all, or only mere traces were detected.

The hemi-albuminoids differ from albumen in their solubility in hot water in dilute-salt solutions, and in their behavior toward weak acid solutions, and property of separating in the cold. They also differ from true peptones by dialysing slowly, and by being precipitated by common table salt, by this and acetic acid, and by acid or alkaline solutions of ammonium sulphate.

¹ Zeit. chem. Ind., 1887. Heft. 2, 62.

² Zeit f. Biologie, 1883. Bd. 19, 169, and 1884, Bd. 20, 1.