

power of the saliva in pathologic conditions. The researches of Uffelmann showed that in cases with moderate fever the activity of the salivary ferment remained unchanged, while in cases accompanied by high fever, especially with loss of strength, its diastatic power was almost entirely lost. In ill-nourished, sickly persons, Butjagen found the salivary ferment reduced in activity. In an extensive series of studies upon the subject, Jawein arrived at the following conclusions: (1) The quantity of saliva in mild febrile diseases is increased and its ferment action unchanged. (2) In severe febrile diseases the quantity of saliva is decidedly lower and its amylolytic action increased, the ferment evidently being secreted in a saturated condition, an important lowering of the total ferment resulting. (3) After the crisis the quantity, as well as the ferment power of the saliva, is increased. (4) In acute, long-lasting febrile diseases, the quantity of the saliva is not infrequently normal, but its amylolytic action is sub-normal. (5) In pulmonary tuberculosis, even in severe cases, the quantity of the saliva is not lowered, and its ferment action is normal. Not until a few days before death is the quantity lowered, but even then the ferment action remains unchanged. (6) In chronic nephritis the salivary quantity is diminished and its amylolytic action not seldom abnormal. (7) In ascites the quantity of saliva is lessened, while the ferment action suffers but little change. (8) In long-lasting, debilitating diseases, such as scurvy, Addison's disease and diabetes the total ferment power is often diminished. In studying the ferment power of the saliva, the author has used an abbreviation of a method suggested by Jawein, for the purpose of selecting the saliva to be examined. After having the mouth of the subject thoroughly rinsed with water, the saliva formed by a moderate amount of sucking of the tongue was expectorated through a period of one-half hour and collected, the amount of saliva secreted in this time being from 15 to 25 c.c. For the purpose of estimating the diastatic power, two methods may be employed. The principle of the first depends upon the amount of sugar produced when a given quantity of saliva acts upon a given quantity of a standard starch solution for a fixed time at a given temperature—a pure potato starch, thoroughly washed and dried, being used in the preparation of the starch solution. The second method employed was that of Roberts, which consists in ascertaining the amount of starch solution, of known strength, which can be transformed by a unit of measure of the diastatic solution to the point at which it ceases to give a color reaction with iodine in a unit of time and at a fixed temperature, Roberts choosing, arbitrarily, as a unit of measure of the diastatic solution, 1 c.c., and as a unit of time five minutes. Both methods are given in detail by the author, each having been applied by him in numerous instances. In order