

the microscope in the hands of the modern practitioner, answers in a moment questions unanswerable without it.

The department of *Pathological Chemistry* has advanced much within the present century. It is advancing daily, and a herculean amount of work and information may be expected from it. We have reason to believe that if we knew the Pathological Chemistry of the blood and fluids as well as we know the pathological anatomy of the solids of the body, then medicine as a science and an art would make advances of the greatest moment.

Pathological chemistry and pathological anatomy together, enabled Dr. Bright to establish the great importance of albumen in the urine, as connected often, though not always, with organic changes in the kidney, but always indicating change in the pathological chemistry of the blood itself. And the recent researches of Dr. Richardson and others, have established that in very many inflammatory diseases, the fibrine of the blood is increased in quantity, and that the change of the fibrine from a fluid to a solid state is caused by increment of heat. Pathological chemistry has also proved to us that the fibrine in the blood is increased in cholera, while it is decreased in malarial and typhus fevers. And recent experiments have demonstrated the fact that the white corpuscles escape from the blood-vessels in inflammation.

A higher and more refined organic chemistry may yet enable us to detect the presence of special toxicological or morbid states of the blood, as producing the characteristic inflammations of the skin in eruptive diseases, puerperal and other fevers. May it not be a blood poison which gives rise to the numerous local, serous and other inflammations so often observed in patients suffering under albuminuria, and by it that vexed question may be settled, as to whether rheumatic fever is due to a *materies morbi*, and whether such *materies morbi* is lactic or acetic acid; and a higher chemistry may perhaps enable us to neutralize these pathological poisons in the system, or eject them from it.

The recent beautiful theory of Liebreich suggesting the adoption of the hydrate of chloral as a therapeutic agent, when he says that "the hydrate treated with an alkali is resolved into chloroform and a formate. The blood being an alkaline fluid, therefore when the hydrate is introduced into the organism, every particle of it will consume the surrounding quantity of alkali, and the decomposition will be completed only after the required amount of alkali has been furnished by the blood. Immediately a minimum quantity of chloroform is formed, and passes to the first place of action, viz., the ganglionic cells of the cerebrum. The action with the increase of chloroform in the blood extends to