

The *Sphygmograph* of "Marey" has so supplemented the sense of touch that the wave phenomena of the pulse and heart are registered, by which we can fathom the secrets of the circulatory apparatus.

The *thermometer* has been brought to our aid with good practical results illustrating the temperature in different diseases.

And the *test tube* ably assists us in diagnosing morbid conditions of the urine, &c.

*Materia medica* has greatly improved during the present century. Many new medicines have been added to the *Pharmacopæia*, and some have properly been expunged from it. The modern discovery of the active principles in our vegetable medicines under the form of the alkaloids, as quinine, morphia, salicine, atropine, &c., &c., has given the practitioner of the present day the means of exhibiting some of the most powerful and useful medicines in a concentrated form; not in the shape of large powders and nauseous tinctures, infusions and decoctions. And we have reason to hope that the work has only commenced, and that the chemist may further assist us by disarming most of our drugs of their revolting and disagreeable taste—a boon to both practitioner and patient.

Possibly most of the indications in therapeutics may yet be attained by the administration of medicines in other and less repulsive modes than through the stomach. While *inhalation* has been practised since the time of Galen, still modern chemistry and ingenuity have done much towards establishing it as one of the methods of exhibiting medicine. The method of *subcutaneous* injection is of modern creation,—daily experience proves its value,—by it we obtain a more rapid and certain effect from the remedy employed.

The practitioner of the present day can point with pride and satisfaction to the late improvements in *Practical Surgery*, without comparing its present state with the period at which the chafing-dish and the searing-iron were as indispensable to arrest hæmorrhage as is now the ligature; and when the cries of the sufferer were smothered only "by the hissing of the heated cauteries against the surface of the bleeding wound."

Appreciating the wonderful powers of nature in the cure of disease, his treatment of wounds and injuries is more simple and rational. He now allows the bleeding to cease, washes away all coagula, closes the wound and applies light water-dressings instead of the complex ointments, compresses, pledgets of carded tow, rollers, straps, &c., in use forty or fifty years ago. Nor has he the same dread of the appliance of stitches as his forefathers had. In fact, some of the greatest triumphs of modern surgery are associated with this simple mechanical process, as for example, the operations for cleft-palate, vesico-vaginal fistula, ovariectomy, &c.