

## ORIGINAL CONTRIBUTIONS

## BLOOD PRESSURE IN ITS PRACTICAL ASPECTS.

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THERE are few subjects at the present moment that are attracting more attention than the physiology and the pathology of the vascular system. One of the means at our disposal for the determining of some of the features of the working of the heart and blood-vessels in health and disease is the study of blood pressure. It throws not only a vast amount of light upon these organs, but it also throws much needed light upon the condition of other organs. It will be seen, however, as we proceed that there is still considerable diversity of opinion. The more I study the subject the more am I convinced that we must accept the three readings of systolic, diastolic and pulse pressure with the utmost care; and, in the main, only regard them as confirmatory of other findings.

W. D. Halliburton in his work on physiology states that the systolic pressure in the carotid of an adult man should be 140 m.m. Hg., and in the radial 110 m.m. Hg. He does not state how much the diastolic should fall below this.

If we turn to the physiology by W. H. Howell, Professor of Physiology in Johns Hopkins, we note some important statements. He gives the average systolic at 110 m.m. Hg., and the diastolic at 80 m.m. Hg., and the mean as 95 m.m. Hg. He also states that the systolic may be 168 mm. Hg., while the diastolic is only 100 mm. Hg. In men, he says, the systolic may be taken in round figures to be 110 to 116 mm. Hg., and the diastolic at 65 to 75 mm. Hg. The difference is the pulse pressure. He then goes on to show that the average pulse pressure is 45 mm. Hg. in the healthy adult man. It would appear from this that as the systolic varies, so should the diastolic. But this rule is found to constantly break down under daily practical tests.

J. Erlanger, Johns Hopkins, gives the systolic, when the psychic element is excluded, at 110 mm. Hg. for the adult of 25 years, and the diastolic at 65 mm. Hg. Von Racklinhausen gave 116 and 73 for a person of the same age, a very marked difference. Erlanger gives the pulse pressure as 30 to 45.

But to show how markedly writers differ, let me quote the figures of M. Potain. For age 25, healthy male adults, he gives the systolic at 170 mm. Hg., and at age 40, about 190 mm. Hg.