

Tell your patient that if the boiler is old he had better not carry on 225 lbs. steam pressure any longer, but had better pull the fire a bit. Of this more anon.

You will gather that the maladies of the fifth decade to which reference is made in the title are (1) various results of arterial degeneration, (2) early nephritis, (3) certain cardiac diseases depending primarily upon the state of the vessels, such as myocarditis, manifested by dilatation or arrhythmia or pain, (4) perhaps gout and often obesity. The point which I wish particularly to impress is that these maladies, diverse as they are, have no symptom or sign in common, but the one point on which oftener than any other they unite, is that frequently the blood-pressure is habitually raised and the instrumental observation of the compressibility of the arteries may enable us to take the right direction in their treatment. It would be foolish to insist that the blood-pressure machine is a mathematically accurate instrument, or that its application to medicine is an epoch-making step; but it is a very useful help to our work, and has this advantage, that while it sometimes fails to give the clue, it rarely or never cries wolf when there is no wolf. Since estimation of blood-pressure is so important to the subject, it may be well to deal shortly with the bearing of heightened pressure upon the body.

I would like to be able to tell you something of the pathology of the breaking-up process. Is there a toxin of old age? In one sense, yes. We speak of strain and stress, but these things contribute to the damage rather than cause it. Let me digress for a moment. A cell perfectly fed, perfectly cleared of its excretion, can perform its maximum of work; but let its food supply lessen below the fixed requirement, or let it fail to rid itself of its excretion, and the cell-power is reduced, be it ever so little: if the maximum of work be yet demanded of it, it can do it, but only at a price, viz., degeneration. This is the state of affairs in the human body. Hard work, mental or physical, means metabolic wear and tear: this in turn means increased output of excretion: this excretion has to be handled by the bowel, the kidney, the skin, the breath, the saliva and