in the veins, and the alternating increase and decrease of pressure in abdomen and thorax, the venous blood-current is promoted by respiration.

De Jager has also investigated the influence on blood-pressure of respiration of condensed and of rarefied air. The oscillations in the jugular and carotid run in opposite directions, as in normal respiration.

As the result of a comparison of different methods of respiration, it is emphatically stated that the normal respiration is the most favorable to the circulation of the blood, a matter of great practical moment in cases of suspended animation. Distension (*i.e.*, over-stretching) of the lungs must prove injurious. With moderate degrees of condensation or rarefication of the air the effect on the mean blood-pressure is not very marked. When both inspiration and expiration occur in condensed air the mean pressure falls in the arteries and rises in the veins, probably owing to increased resistance in the pulmonary capillaries. When both acts of respiration are performed in rarefied air the reverse effects on the blood-pressure follow-if any change at all takes place. When an animal is made to breathe first condensed and then suddenly rarified air, the mean arterial pressure will on the transition greatly rise and the venous fall. It may be laid down as a general rule that however we cause the condensed air to act during respiration it will never be favorable, but always detrimental to the blood-current. If with certain degrees of condensation no effects appear to follow owing to increased cardiac action, this expenditure of energy must be taken into account.

These conclusions really follow in great part from what has previously been stated in regard to the general influence of respiration on blood-pressure. That there are *dangers* in the use of condensed air will readily appear. A weak heart and consequent feeble circulation are contra-indications, for diastole is obstructed, not to mention increased strain in systole. But the application of rarefied air may be favorable to the circulation. It should be used during expiration only—it favors the latter, but impedes inspiration. Williams' apparatus is not in harmony with these principles. In Valsalva's experiment there is a large