

Correspondence

CONSERVATION OF PAPER

To the Editor:—At the hospital staff meeting we were informed that, owing to pressure from government boards controlling the use of raw materials, certain form sheets used in our case histories will no longer be furnished. For example, "progress" and "follow-up" notes will, for the duration, go on the same sheet. This may not be a vital change, but the hospital is making a definite sacrifice. The histories will be less easily digested and abstracted when somebody wishes to tabulate a number of them. Yet if this trifling change can be of the slightest use in the war effort, it has our wholehearted approval.

Here is the rub. After that meeting, I visited my mail box in the hospital and abstracted sixteen pieces of mail that made a mass of paper weighing 1 pound 9 ounces. Many folders consisted of numerous pages, some printed in brilliant colors. Many, many hours of work by able bodied printers had gone into the preparation of that material. And that at a time when the nation is crying for manpower for the war effort. All that printed matter told wondrous tales of this and that certain to transform the practice of medicine into a dream of joy.

We are told that paper is scarce, pigments for colored inks are scarce, the working time of skilled men is scarce. Why then is it permitted to waste these values on the masses of junk that descend into our mail boxes daily? All that stuff I mentioned promptly went into the scrap basket. I know I am tweeking the tail of the Sacred Cow of advertising; for that profanity I will lose caste with the pundits. I would sooner lose caste than lose this war. Cannot we physicians do something to discourage the horrible waste represented by the masses of printed matter that flood us? Do not patronize the wastrels.

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FOR A BETTER MEANS OF ESTIMATING THE NEED FOR RESTORATION OF THE BLOOD VOLUME

To the Editor:—The benefit of infusion of serum in cases of shock seems now to be established beyond all doubt. Particularly after severe burns, if the loss of serum externally is not to induce a development of shock, restoration of the blood volume is imperative. The question then is How can the surgeon best judge when, how much and how rapidly serum should be administered?

It seems now to be generally accepted that failure of the circulation, or shock from decrease of blood volume, is not due to depression of the vasomotor control of the arteries but that the fall of arterial pressure is secondary to the decrease of the venous return: the heart can pump into the arteries no more than the decreased volume that it receives from the veins.

It would therefore be more logical and afford an earlier and more quantitative index of a failing circulation to measure directly the volume, or decrease of volume, of the venous return than to rely, as at present, almost wholly on measurements of arterial pressure alone. The reason that the venous return is not now measured seems to be that surgeons are generally unaware that there is any method for this purpose.

Yet there is such a method, and it is very simple. It consists in the measurement of the column of blood in the veins of the arm when the patient is tipped up momentarily into an extreme head down and feet up position—a slope of at least 1:4. This is a different matter from the practically worthless figures

for venous pressure when the body is horizontal. Measurements then, as between health and shock, can differ by only a few millimeters of blood. But when the body is inverted, the venous column varies by many centimeters: a high column indicating a full volume of venous return, and a low column affording a direct indication of the need for infusion of serum or blood (Henderson, Yandell, and Haggard, H. W.: *J. Pharmacol. & Exper. Therap.* **11**:189 [April] 1918. Henderson, Yandell: *Science* **95**:539 [May 29] 1942).

Although the head down and feet up position is not so much of an aid to the circulation as surgeons generally believe, it can be a great aid in diagnosis. For when all the blood returning from the tissues is, by means of inversion of the body, poured into the uncapacious and relatively undilatable veins of the head and neck, the pressure of blood in those vessels is an index of the volume of the venous return. To measure that pressure, one of the patient's arms is held vertically, or lifted gradually, and the height of the column of blood in the veins is measured from some fixed point of reference such as the symphysis of the clavicles. Estimated in this way the volume of the venous return has been found to be greatly decreased after some major surgical operations and also in cases of acute illness. As recovery develops the venous column rises again; as vitality fails, the venous column sinks progressively lower until it reaches zero as the tonus of the body's musculature disappears at death.

Such measurements of the venous return give indications of decrease of the active blood volume and the need for infusion of serum or blood much sooner and more significantly than the now conventional measurements of arterial pressure alone.

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THE PEPPER HEARINGS ON MEDICAL MANPOWER

To the Editor:—It is difficult to understand how such a garbled and unedited stenographic report of my testimony before the Senate Committee could have been published in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

In the editorial it was stated that I would be in favor of a totalitarian government if it meant that tuberculosis could be eradicated. Actually I made no mention whatever about our government. Even to suggest that I thought that this wonderful government of ours, for which our boys are fighting, and dying, should be changed is absurd and beyond comprehension. In my testimony I was speaking of public health only and stated that I wanted it taken care of and that "whether you call this totalitarianism or industrial medicine or group medicine or American Medical Association, I don't care." In another instance I stated that public health is bigger than individuals and that we must adjust ourselves to that premise. I stated also that our efforts to control it should be continued. Whether this was done in a democratic or totalitarian way made no difference as long as it was done. This could not possibly be construed honestly as meaning that I am for a totalitarian form of government.

Public health vitally interests two widely separated groups—the one the public which is afflicted with disease, and the other the medical profession which is supposed to care for it. If the latter proves ineffectual in any community or under any circumstances, the public has a right to demand—and get—the proper care. Therefore, a proper allocation of doctors is obviously essential. These are truths which are not debatable.

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