

the production, perpetuation, and treatment of pulmonary oedema and inflammation.

The first lecture describes the capillary circulation in the lungs and its powers of reaction to imposed stresses. It describes also the lymphatic system which is concerned in some degree with the removal of exudates and transudates, and the alveolar pores and their role in collateral ventilation. In the second lecture it is demonstrated that anoxia causes excessive capillary leakage in the lungs as elsewhere; that increased pressure in the pulmonary capillaries is not, alone, a cause of recognizable oedema; and that localized patches of oedema can and do easily occur in the lungs without noticeably affecting breathing. An interesting new compound, allied to thiourea, has been found to be a specific for causing pulmonary oedema and pleural effusion in dogs. By the use of this drug it has been demonstrated that the lymphatics have a limited power in removing exudates, and beyond this point the only outflow is by the air passages—a route which implies progressive exclusion of air and eventual death.

The third and fourth lectures, from the above basis, provide a discussion on the effects of breathing movements on transudation and on the therapeutic approach to pulmonary oedema. Oxygen should be given early in lung diseases characterized by anoxia and not used only as a last resort when the patient is blue. Pure oxygen should be administered by a non-leaking mask in half-hour spells with equal rests between. Morphia and other sedatives, although soothing to the patient, do harm by reducing the range of breathing and increasing anoxia.

A final and most instructive lecture deals with the various methods of artificial respiration, manual and mechanical, applicable in different circumstances. In emergencies the author gives pride of place to the mouth to mouth method, with Schäfer's method next and Silvester's last. Mechanical devices such as the pulmotor, which provide alternate pressure and suction, are liable to defeat their own ends if used for long periods, as suction at the expiratory phase gradually reduces the aerating surface of the lungs. The Drinker-Shaw apparatus which allows passive expiration is the best for cases which must remain long under treatment. Of theoretical interest is Thunberg's barospirator, in which alteration of air pressure is used instead of alteration of volume, so that respiration may take place without the movements of breathing.

Like all the Harvard monographs in medicine this is interesting and concise, and the book is well produced and illustrated. JAMES MARSHALL.

MAN THE MICROCOSM

Man and his Meaning

By Dr. J. Parton Milum. Pp. 125. (London: Skeffington and Son, Ltd., 1945.) 15s. net.

THE entity known as mind, so far as appearances go, would seem to exist only in certain highly developed organisms—man, and possibly to some degree in the higher mammals. The actual nature of mind is much of a mystery, and likely to remain so. The generally accepted theory is that it has been developed in the creature to enable it to cope successfully with its environment. On this view it would not be an instrument capable of solving the mysteries of the universe. Nor would a mind-endowed species

be entitled to regard itself as of peculiar importance in the scheme of things.

Yet to confine mind to its familiar organic embodiments may not after all be justified, as was surmised by Plato, who put into the mouth of Socrates words quoted by Dr. Parton Milum, which still deserve attention:

"Do you suppose that you have a little wisdom yourself, and yet that there is no wisdom to be found elsewhere? And that, too, when you know that you have in your body only a small fragment of the mighty earth and a little portion of the great waters; and of the other elements you received, I suppose, a little bit of each towards the framing of your body? Mind alone forsooth, which is nowhere to be found, you seem by some lucky chance or other to have snatched up from nowhere!"

Dr. Parton Milum argues in his book that "the insight which man has into nature is possible only because his essential self is akin to the fundamental Reality in nature". It is not man who has projected his mind upon the universe, but rather the order implicit in the universe has moulded and stamped itself upon man's mind. In fact, "man's mind is the reflex of the order outside himself in the universe".

The issue as to whether mind actually is limited to its embodiment in man is more than a speculative question, because when man can believe that a certain congruity exists between his own nature and the universe, he has confidence in his own destiny and value in the scheme of things. Indeed, recent events have established the truth of Dr. Parton's words when he writes:

"Until the dignity and worth of human nature are perceived to be grounded in Reality, all the amazing gifts of science tend to neutralize themselves and may become actually destructive of human good."

In Dr. Parton Milum's view, the ancient idea that man is a microcosm, or little world in himself, developing in response to the macrocosm or universe, and having its counterpart in his own being, is a far more adequate conception than the prevailing attempt to envisage man as an evolving animal; and he reminds us of the answer offered by the Christian religion to the enigma of man's nature, namely, that "Man is man by virtue of something which he only partially possesses. The truly human which he does not wholly possess is not something derived from the animal world, but is of a cosmic and spiritual nature". Moreover, against the denial that the universe sets any value upon the human individual, since value can only be attached to any object by a person, Christianity affirms that the basis of the universe itself is personal.

Dr. Parton Milum holds that it is impossible to think about the universe apart from a subjective reference, which subjective reference is grounded in reality at least as much as the 'external' world. That "the things which are seen" bear witness to an invisible order is not only an intuition of primitive man, but is also the assumption upon which the scientific view of the universe has been built up.

This book is a useful antidote to the superficial view held by many that there is nothing in the universe but matter, that mind is a phenomenon of matter and dependent upon it—a theory which, as F. H. Bradley pointed out, is a mutilation of the human spirit; it is also a short road to barbarism.

J. C. HARDWICK.