more positive results may be obtained on routine examination without resorting to concentration of sputums.

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AN OVER-COMPLEX APPARATUS

THE ingenious device described by J. H. Wales in SCIENCE for June 15 (79: 7059, 545) for obtaining a constant flow of liquid from a vessel by means of a siphon float appears to involve a fallacious complexity. It is inferred that by floating an inner container A, in an outer vessel of liquid, the level of the liquid in A will remain at a nearly constant point because the inner vessel with its contents rises by flotation as the liquid in it is siphoned off. This is scarcely a true picture. As the vessel A rises from loss of contents the level in B falls, and since the level in B always remains at a given height above the level of A the two levels will sink together. Any uniformity the system may have, therefore, is strictly dependent on the level in B, which is lowered in direct proportion to the volume of liquid removed. If the same liquid is used in each vessel, and if cost, restricted quantity or other limitation on the liquid in A need not be considered, where then is the advantage of the inner vessel? Exactly the same result would be attained if the float siphon were placed directly in B and A discarded altogether.

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SPECIAL ARTICLES

ON A SELECTIVE GAMETOGENIC EFFECT OF CERTAIN HYPOPHYSEAL EXTRACTS

IT has been well established that the structure and function of the testis, both as regards its production of germ cells and of its internal secretion, rapidly degenerate after removal of the anterior hypophysis and that both functions are restored by the administration of implants or extracts of anterior hypophyseal substance. It is of special interest that, depending on their method of preparation, extracts of hypophyseal substance can be made which have relatively much more influence on the germinal than on the internally secreting mechanism of the testis.

The hypophyseal extracts here reported were those employed in another series of experiments for their synergic properties when added in vitro to pregnancy-prolan. By their use it was possible to markedly increase the limited effects of prolan on normal immature females and to bring about the development of the ovary and ovulation in hypophysectomized females. These preparations were forty per cent. alcoholic extracts of desiccated anterior pituitary tissue, or trypsin-erepsin digests of such extracts. They maintained the germinal epithelium of the testis of hypophysectomized rats and, moreover, caused its repair after the profound regression encountered forty days after hypophysectomy, without effect on the internally secreting mechanism as mirrored by infantile seminal vesicles. Indeed, our results, which are to be published in detail elsewhere, show that the testis may increase threefold in weight though the seminal vesicles remain completely atrophic. In contrast to these results, the predominating effect of other gonadotropic preparations, whether from hypophysis, pregnant mares' serum, pregnant human serum, urine or placenta, is on the internally secreting component of the testis—usually considered to be the Leydig tissue.

Entirely independently of these studies, Smith, Engle and Tyndale have recently shown that the substance in menopause urine, like the hypophyseal extracts here reported, differs from the substance in pregnancy urine in its stimulating effect on the germinal rather than on the interstitial testicular tissue, and by the combination of the substance in menopause with that in pregnancy urine Smith and Engle have also secured synergic effects in hypophysectomized females.

The possibility of preparing hypophyseal extracts which effect selectively the seminiferous epithelium, as does the substance in menopause urine, furnishes presumptive evidence of an underlying chemical similarity if not identity of the two substances and of a true hypophyseal origin of the menopause hormone.

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A NEW TYPE OF FEVER AGENT

THE increasing use of artificial fever in various diseased conditions is arousing interest in the production of fever by chemical means. In some cases, such as general paresis and some chronic infections, pyretic drugs owe their possible value to the temperature increase; in other conditions, such as obesity and perhaps psychic apathy, improvement may be ascribed to metabolic stimulation.

Fever results from metabolic increase under two