status of the writers and on their military rank. The majority of the answers came from men in this country, but those from overseas did not differ significantly from the whole group. Personal acquaintance of the writers with the author of this survey (eight cases) did not seem to influence the opinions expressed as shown by the fact that the answers were representatively distributed.

In summary, thirty-five of these forty-one zoologists now in the Armed Forces believe that peacetime research should be carried on in wartime, "in spite of war" and even with "redoubled efforts." Of these, five are for continuation in spare time, three with restriction to important problems, and twenty-seven for more or less unqualified continuation. Six men are against continuation. It would be of interest to know what the majority of men in other fields of science, of the humanities and in general think about the problem raised.

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THE 24-INCH OBJECTIVE PRISM OF THE WARNER AND SWASEY OBSERVATORY

ONE month before "Pearl Harbor," the 24-inch Schmidt-type telescope and the building addition to the Warner and Swasey Observatory of the Case School of Applied Science were completed. Plans for an objective prism for this instrument were executed in conjunction with the design of the mounting, and the Bausch and Lomb Company agreed to furnish us with a suitable disc of optical glass for this purpose. On December 12, 1943, the completed prism was finally mounted on the telescope and during the succeeding two months extensive tests were made with it.

The one-lump mass of glass for the disc was chosen from one of the pots of optical glass. The 260-pound piece chosen was free from deep striations and air bubbles. This huge mass, one of the most perfect ever produced, was molded to shape in a deep furnace utilizing a pot design to produce a wedge shape. The flat surfaces were then polished and the disc examined with polarized light. No strains were detected. Later tests showed that the annealing of the glass was excellent. The diameter of the finished disc, before being reduced in the optical shop, was 26.75 inches; the thickness varied from 3.0 to 4.3 inches. The refractive index of this light flint glass is 1.617 with dispersion ratio of 36.6.

The grinding and polishing of the prism was executed in a most satisfactory manner by C. A. Robert Lundin, of the Warner and Swasey Company. This firm has also constructed and erected the Schmidt-type Burrell telescope of the observatory and the dome.

The diameter of the finished prism is 24.5 inches, with clear aperture of 24.0 inches and with graduated thickness from 0.75 to 2.5 inches, producing an angle of 4 degrees. The finished prism weighs 100 pounds.

The prism cell mounting is so constructed that when in place it may be easily rotated through any desired angle in a plane perpendicular to the optical axis of the telescope. The cell with the prism forms a symmetrically balanced mass of 150 pounds. A 26-inch ring-weight of 150 pounds situated in front of the correcting lens is first removed from the telescope when the prism is to be mounted, thus avoiding any re-balancing of the instrument.

The optical system of the Schmidt telescope is composed of a 36-inch mirror of pyrex glass with aluminized surface and a 24-inch correcting lens of Vitaglass, 0.34 inch thick. The effective focal length of the instrument is 84 inches. The plate holder is circular and adapted for plates 8 inches in diameter yielding a field of 5°.

The combination of the prism and telescope produces spectra of 3.2 mm in length from H_β to H_ϵ.

The quality of the spectra appears excellent. In the spectrum of the F_5 star α Persei 21 lines in the region from H_β to H_{16} have been identified. Both focal images and spectral images are of excellent definition to the very edge of the plate.

The main program of the prism telescope combination will be the study of the structure of the galaxy through spectral type distributions and related problems. Plates already secured indicate that absolute magnitude classification as well as spectral types may be readily studied with these small scale spectra.

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DIGESTIVE AVAILABILITY OF BEAN STARCH

IN view of the present emphasis on the use of dried beans a brief account of some additional observations on digestive factors in navy beans may be of interest. It was recently found that the ether-soluble fraction of these beans retards the *in vitro* digestion of soluble starch more than some of the other edible fats. In an earlier note[1] attention was called to the interference which is observed when the total ether-soluble fraction is added to soluble starch in the same concentration in which it occurs in the beans or about 1.5 per cent.

Employing 1 per cent. solutions of soluble starch adjusted to pH 7 with phosphate buffer, further study has shown that various preparations of starch and navy bean oil differ in the ease with which they are completely digested when sufficient pancreatic amylase is added to digest untreated control starch or starch containing 1.5 per cent. of olive oil, lard or butter

[1] D. E. Bowman, SCIENCE, 98: 308, 1943.