segregate *Pica* Brisson, as the type and only genus of a separate family, the name of such family could not well be Picidæ, since this is already in use for another group, with *Picus* Linnæus as basis. Consequently the name of the family containing *Pica* would become *Propicidæ*.

HARRY C. OBERHOLSER
U. S. BIOLOGICAL SURVEY

FURTHER RESULTS OF ANALYSIS OF LIGHT DEFLECTIONS OBSERVED DURING SOLAR ECLIPSE OF MAY 29, 1919

1. SINCE the article in SCIENCE of June 11, 1919 (pages 581–585) was written, we have received through the kindness of the Astronomer Royal the printed "Report"[1] giving in detail the reductions and results of the light deflections observed by the two British expeditions during the solar eclipse of May 29, 1919. On the basis of the information in the "Report" we have made an independent reduction of the photographic measures resulting from Crommelin's plates.

The non-radial effects, as resulting from our calculations, are found to be on the average about one third of those derived from the British printed results and as given in the seventh column of Table II. of the previous article in SCIENCE (see page 583); in brief, *our non-radial effects are on the order of the error of observation, so that they may be regarded as non-existent until other observational evidence is obtained.*

2. Table I. contains the revised radial light deflections resulting from all reductions; they are subject to some slight changes when some required additional information has been received. Comparing the observed deflections with those computed on the basis of the Einstein theory of gravitation, it will be seen that generally the observed deflection is greater than the theoretical value.

TABLE I

Radial Light Deflections, May 29, 1919, at Sobral

No.	Star	Dist.[2]	Deflection		O–E
			Obs'd.	Einstein	
3	κ_2 Tauri	1.99	1".00	0".88	+0".12
2	Pi. IV. 82	2.04	1.00	0.85	+0.15
4	κ_1 Tauri	2.35	0.83	0.74	+0.09
5	Pi. IV. 61	3.27	0.57	0.53	+0.04
6	υ Tauri	4.34	0.55	0.40	+0.15
10	72 Tauri	5.19	0.35	0.34	+0.01
11	56 Tauri	5.38	0.31	0.32	−0.01

Star 11, the most distant star, according to the British reductions showed a deflection agreeing better with the value calculated on the basis of the Newtonian Mechanics, but it now shows a deflection agreeing better with the Einstein value. In brief, the results of all reductions would lend additional support to the conclusion reached by the British astronomers, namely, that, as judged by their best photographic plates, the light deflections observed during the solar eclipse of May 29, 1919, accorded better with the calculated values on the basis of the Einstein theory than on the basis of the Newtonian Mechanics.

3. Comparing the observed deflections with the theoretical ones, as given in Table I., it would seem that the former decrease with distance more rapidly than do the latter. Whether this implies that the observed light deflections were the combined effects of the sun's gravitational action and a solar atmospheric action of some kind can possibly not be settled definitely until further observational evidence has been obtained.[3]

LOUIS A. BAUER
DEPARTMENT OF TERRESTRIAL MAGNETISM,
WASHINGTON, D. C.,
July 17, 1920

[1] "A Determination of the Deflection of Light by the Sun's Gravitational Field from Observations made at the Total Eclipse of May 29, 1919," by Sir F. W. Dyson, F.R.S., astronomer royal; Professor A. S. Eddington, F.R.S., and Mr. C. Davidson, *Phil. Trans. R. S.*, London, Ser. A., Vol. 220, pp. 291–333. [The longitude of Sobral, as given on page 296, should read $2^h\ 41^m\ 25^s$ west, instead of $2^h\ 47^m\ 25^s$.]

[2] Expressed in units of the sun's radius.

[3] It may be suggestive that the light ray from star 2, which according to Table I. differed largely from the Einstein value, passed through the solar atmospheric region directly above the remarkable prominence on the southeast limb of the sun.