

Mr. Roberts says that he makes the computations with the aid of the Tide Predictor, and that, therefore, they must be correct.

I am, Gentlemen,

Yours faithfully,

T. W. BACKHOUSE.

West Hendon House,  
Sunderland,  
1916, Oct. 2.

*Méchain-Tuttle's Comet of 1790-1858 and a  
Meteoric Shower.*

GENTLEMEN,—

This comet, which has shown an average period of 13.64 years for 9 revolutions between 1790 Jan. 28 and 1912 Oct. 28, passes a little outside the Earth's orbit at perihelion.

In 1874 the late Prof. A. S. Herschel published, in the *British Association Report*, a valuable list of completed dates and positions of cometary radiants, and gave the following for Méchain-Tuttle's comet:—

	Radiant.	Date.
Méchain, 1790 II. . . . .	220° + 76°	Dec. 20 +
Tuttle, 1858 I. . . . .	221 + 77	Dec. 20 +

The distance of the orbit of Earth and comet in the latter case is about 7,000,000 miles.

I have seen a meteoric shower from

218° + 76° Dec. 18-25

in various years, but the display has shown no special abundance. I have, however, obtained comparatively few observations at the particular date mentioned, except in 1876 and 1885. In the latter year, on Dec. 22, I detected an active shower of 10 meteors from a very sharply-defined radiant at 194° + 67°, but this point appears to be not sufficiently near Herschel's computed place for cometary fragments (being 12° S.W.) to warrant an assumption of identity.

The other shower near  $\beta$  Ursæ Minoris is, however, in excellent agreement, and suggestive that further observations should be made on about Dec. 20 to recover it. The Earth passes the cometary orbit within a distance at which we might fairly expect to encounter some outlying fragments from it.

The comet will not return until 1925, so that there is not much prospect of seeing its meteors for several years unless, indeed, they form a continuous ring similarly to certain other systems.

There are several other comets of short period probably capable, from the proximity of their orbits, of distributing meteors in our atmosphere. Among these are Finlay's comet of 1886 (meteors on Sept. 7 from  $\gamma$  Libræ and on Oct. 24 from  $\xi$  Sagittarii) and

Nov. 1916.]

*Correspondence.*

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Giacobini's comet of 1900 (meteors on Oct. 10 from near  $\gamma$  Draconis). There are quite a number of instances where feeble showers accord suggestively in date and position with possible cometary meteors, though the evidence is not conclusive as to their actual association. Much remains to be done in specially searching out presumed resemblances between cometary and meteoric systems. Changes are annually operating visibly to furnish new swarms of meteors, and to supplant old ones either nearly exhausted or drawn away from our path by planetary attraction. The well-known comet of Biela and its connected meteor-stream are an example of the vicissitudes to which these objects are liable. The conspicuous shower of June 28 last may well arouse a keener interest in this branch, since it proved that new and important phenomena may present themselves for detection at any time.

I am, Gentlemen,  
Yours faithfully,

Bristol, 1916, Oct. 18.

W. F. DENNING.

### *Standard Time in Ireland.*

GENTLEMEN,—

It may be of interest to some of your readers to have the exact terms of the Time (Ireland) Act, 1916:—

As from two o'clock in the morning, Dublin mean time, on Sunday the first day of October nineteen hundred and sixteen, the time for general purposes in Ireland shall be the same as the time for general purposes in Great Britain both during the periods when the Summer Time Act, 1916, is in force and at all other times, and accordingly the enactments mentioned in the schedule to this Act shall, as from the same date, be repealed to the extent specified in the third column to that schedule.

The enactments referred to in the schedule are the Summer Time Act, 1916, and the Statutes (Definition of Time) Act, 1880. It may surprise some of your readers to learn that Greenwich Time was not made the legal time of Great Britain till that date. The terms of the Act, 1880, are:—

Whenever any expression of time occurs in any Act of Parliament, deed, or other legal instrument, the time referred to shall, unless it is otherwise specifically stated, be held in the case of Great Britain to be Greenwich mean time, and in the case of Ireland, Dublin mean time.

It will be observed that the statutory definition is limited to the expression "time," in any *Act of Parliament, deed, or other legal instrument.*

In the case of "*Curtis v. March*," reported in vol. iii. of Hurlstone and Norman's '*Exchequer Reports*,' p. 866 (1858), it was held that the time appointed for the sitting of a Court must be understood as the mean time at the place where the Court sits, and not Greenwich Time unless it be so expressed, and a new trial was granted to a Defendant who arrived at the