

Six edges of a dodecahedron being chosen so that every pentagonal face is represented by one edge only, their middle points are the vertices of an octohedron. The choice can be made in five ways, and the five resulting octohedra can be obtained by choosing one and then rotating it through  $72^\circ$  at a time about an axis joining the middles of two opposite faces of the dodecahedron.

An interior icosahedron being made from an octohedron as described above, and the middles of its faces joined so as to make a dodecahedron, eight of the dodecahedron's twenty vertices are at the middles of the faces of the octohedron: the remaining twelve are all one-third of the way from a vertex of the octohedron to a vertex of the icosahedron (not the most distant, but placed as  $H$  is from  $B$  in figure 4).

Other dodecahedra have the middles of their faces at the vertices of the icosahedra. Every face of the interior dodecahedron so formed is pierced at its middle by an edge of the octohedron: six of its edges also cut two each of the edges of the octohedron.

In figure 7,  $AB$  is an edge of the octohedron,  $OP$  of the interior, and  $O'P'$  of the exterior dodecahedron. The angles marked with a dot are  $45^\circ$ . The figure is not remarkable except for a rich crop of extreme-and-mean sections, and for the presence of seven lines in Geometrical Progression,  $BS$ ,  $SL$  or  $LM$ ,  $MA$  or  $BL$ ,  $BM$  or  $LA$ ,  $BA$ ,  $M'B$  and  $M'A$ .

W. HOPE-JONES.

## CORRESPONDENCE.

To the Editor of *The Mathematical Gazette*.

Sir,—*The Times* for January 10, 1942 contains the news that one of our members, the Right Rev. Walter Robert Adams, D.D., Bishop of Kootenay, has been appointed Archbishop of Kootenay. I hope that I may speak for all our members in sending him our most cordial good wishes, in congratulating the Church in Canada on having a mathematician at the helm, and the Mathematical Association on numbering (is it for the first time?) an Archbishop among its members.

Yours, etc.,

W. HOPE-JONES.

1391. . . the Giralda Tower . . . was once the Tower of the Great Mosque, and was designed by Geber, the Moor who invented algebra.—Halliday Sutherland, *The Arches of the Years*, ch. ix, p. 125. [Per Mr. P. J. Harris.]

1392. . . *The Leap of the Bells*. When the rope is pulled, the bell begins to swing and then revolves outwards or inwards according to the winding of the rope on the axle. When the rope is unwound, the bell continues to revolve by its momentum and the rope is rewound on the axle. . . The boy stands on the parapet and throws his weight on the rope. . . Twisting the rope round his wrists, he jerked it towards the centre of the arch . . . and the boy was slung clear out of the belfry. This flight through the air at the end of the rope towards the revolving mass thirty feet above resembled part of a parabola.—Halliday Sutherland, *The Arches of the Years*, p. 126. [Per Mr. P. J. Harris.]