were included in the interval through which the scrutiny extended, the knowledge of the length of the year so acquired would be proportionally more exact.

Besides those notices of the sun which offered exact indications of the seasons, other more indefinite natural occurrences were used; as the arrival of the swallow (*χελιδών*) and the kite (*ἰκτίν*). The birds, in Aristophanes' play of that name, mention it as one of their offices to mark the seasons; Hesiod similarly notices the cry of the crane as an indication of the departure of winter.[5]

Among the Greeks the seasons were at first only summer and winter (*θέρος* and *χειμών*), the latter including all the rainy and cold portion of the year. The winter was then subdivided into the *χειμών* and *ἔαρ* (winter proper and spring), and the summer, less definitely, into *θέρος* and *ὀπώρα* (summer and autumn). Tacitus says that the Germans knew neither the blessings nor the name of autumn, "Autumni perinde nomen ac bona ignorantur." Yet *harvest*, *herbst*, is certainly an old German word.[6]

In the same period in which the sun goes through his cycle of positions, the stars also go through a cycle of appearances belonging to them; and these appearances were perhaps employed at as early a period as those of the sun, in determining the exact length of the year. Many of the groups of fixed stars are readily recognized, as exhibiting always the same configuration; and particular bright stars are singled out as objects of attention. These are observed, at particular seasons, to appear in the west after sunset; but it is noted that when they do this, they are found nearer and nearer to the sun every successive evening, and at last disappear in his light. It is observed also, that at a certain interval after this, they rise visibly before the dawn of day renders the stars invisible; and after they are seen to do this, they rise every day at a longer interval before the sun. The risings and settings of the stars under these circumstances, or under others which are easily recognized, were, in countries where the sky is usually clear, employed at an early period to mark the seasons of the year. Eschylus[7] makes Prometheus mention this among the benefits of which

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[5] Ideler, i. 240. [6] Ib. i. 248.

[7] *Οὐκ ἦν γαρ αυτοῖς οὔτε χείματος τέκμαρ,*
Οὔτ' ἀνθεμώδους ἦρος, οὔδε καρπίμου
Θέρους βέβαιον· ἀλλ' ἄτερ γνώμης τὸ πᾶν
Επρασσον, ἔστε δή σφιν ἀνατολὰς ἐγὼ
Αστρων ἔδειξα, τάς τε δυσκρίτους δύσεις.—Prom. V. 454.