

Being laid off from a scale, the figures above referred to, exhibit to the eye the relative, although not the real size of the different species. Fig. 15 is the only one drawn of the natural size.

It is a natural enquiry, whether the facts that have been stated, will enable us to refer these birds, of the new red sandstone era, to any of the families of existing birds. The idea, that they belonged to existing species, can be indulged only by those unacquainted with the history of organic remains. Judging from that history, the geologist will expect only slight resemblances to existing species. I cannot, however, but believe that several of them, at least, were Grallæ. They correspond with this tribe of birds in two respects; first, in having but three toes; as is the case with several genera of the existing waders. The great length of their step, also, proves them to have been very long legged; another characteristic of the Grallæ. I have had but few opportunities for making a comparison; but I am satisfied that the step of our common birds, not belonging to the Grallæ, is generally shorter with the same size to the foot than in the Ornithichnites. Thus, the common domestic hen, with a toe three inches long, takes a step of only six or seven inches; while the step of *O. diversus*, of the same size, will average ten or twelve inches. The domestic goose, with a middle toe four inches long, takes a step of only seven or eight inches. The turkey, however, with a foot four inches long, takes a step of just about the same length as that variety of *O. diversus* shown in Fig. 6, (with a similar foot,) that is, twelve inches long; and the pea-hen, with the same length of foot as the *O. diversus*, shewn in Fig. 7, falls but an inch or two short of the fossil tracks in the length of the step; but the turkey and the peacock are birds with rather unusually long legs among the Gallinæ.

I have not been able to obtain any examples of the length of the step of the larger existing Grallæ. And of the smaller species I can mention only a few. The small snipe, whose tracks are represented in Fig. 11 on a small scale, and in Fig. 14 on a larger scale, takes a step of only two and a half inches, with a foot an inch long. And as I am informed by Dr. Richard Harlan, the step of the *Ardea Canadensis*, with a foot three inches long, measures from four to six inches. On comparing these steps with those of *O. minimus*, whose foot is one inch, and its step four inches long, and with *O. diversus*, β *platydactylus*, whose foot is from two to three inches long, and its step from six to eight inches, we perceive that the steps of the existing species are shorter than the fossil foot