

The same process of cell-division now repeats itself several times in succession. In this way, from two cells (Fig. 6 *A*) there arise four (Fig. 6 *B*); from four, eight (Fig. 6 *C*); from eight, sixteen; from these, thirty-two, etc.

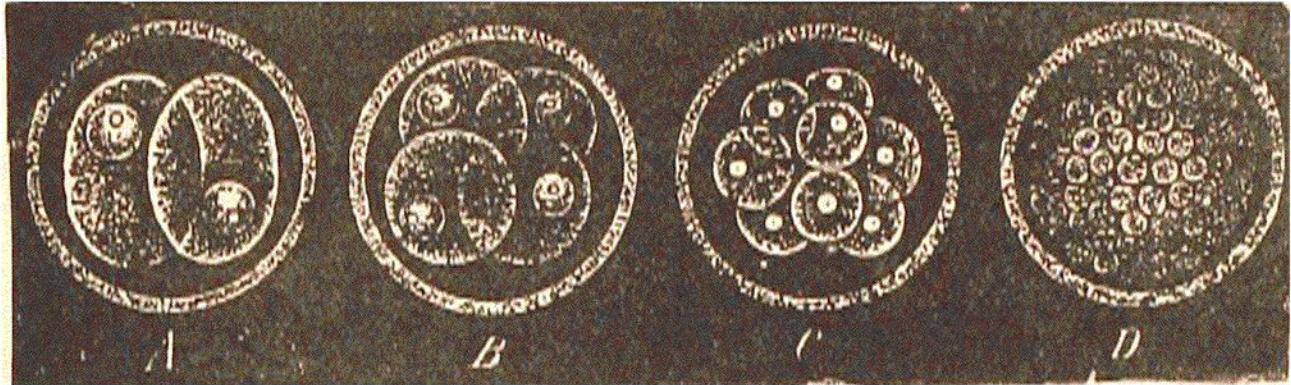


FIG. 6.—First commencement of the development of a mammal's egg, the so-called "yolk-cleavage" (propagation of the egg-cell by repeated self-division). *A*. The egg, by the formation of the first furrow, falls into two cells. *B*. These by division fall into four cells. *C*. These latter have fallen into eight cells. *D*. By continued division a globular mass of numerous cells has arisen, the Morula.

Each time the division of the cell-kernel or nucleus precedes that of the cell-substance, or protoplasma. As the division of the latter always commences with the formation of a superficial annular *furrow*, or cleft, the whole process is usually called the *furrowing of the egg*, or yolk-cleavage, and the products of it, that is, the cells arising from the continued halving, are called the *cleavage spheres* (Blastomera). However, the whole process is nothing more than a simple, oft-repeated *division of cells*, and the products of it are actual, naked *cells*. Finally, through the continued division or "furrowing" of the mammal's egg, there arises a mulberry-shaped ball (Morula), which is composed of a great number of small spheres, naked cells, containing kernels (Fig. 6 *D*). These cells are the materials out of which the body of the young mammal is constructed. Every one of us has once