First, a definition of the distribution type $(a, b, 0)$ is introduced. Next, it is shown which known distributions satisfy this definition, the parameters a and b that correspond to them, and specific sets of parameters for each of the distributions are determined. Then, it is proven that no other distributions can satisfy this definition. A maximum likelihood estimation method for estimating the parameters a and b directly from the data is presented. Finally, a simulation study is conducted, in which the probabilities from the estimated distribution type $(a, b, 0)$ from specific data using the maximum likelihood method are compared with the empirical relative frequencies calculated from the data.