Image Steganography is the process of hiding information which can be text, image inside a cover image. The secret information is hidden in a way that it not visible to the human eyes. Deep learning technology, which has emerged as a powerful tool in various applications including image steganography, has received increased attention recently. The main goal of this paper is to explore and discuss various deep learning methods available in image steganography field. Deep learning techniques used for image steganography can be broadly divided into three categories - traditional methods, Convolutional Neural Network-based and General Adversarial Network-based methods. Along with the methodology, an elaborate summary on the datasets used, experimental set-ups considered and the evaluation metrics commonly used are described in this paper. A table summarizing all the details are also provided for easy reference. This paper aims to help the fellow researchers by compiling the current trends, challenges and some future direction in this field.

