In the present work we study practical solution of dependency parsing's problem with help of graph algorithm for finding maximal spanning tree in oriented graph (multigraph). Advantage of this approach is very easily parsing of non-projective constructions. We represent the parsing sentence as an oriented multigraph, which vertices constitutes words of our sentence and edges symbolize (potential) relation between single pairs of words. Evaluation of edges we get from training data, it can be count for example as probability of relation between given two words, possibly in combination with other more advanced methods. Resulting maximal spanning tree gives then the dependency tree of our sentence.