BetterBWMatching(FirstOccurrence, *LastColumn*, *Pattern*, Count)

    $top \leftarrow 0$

    $bottom \leftarrow |LastColumn| - 1$

    while $top \leq bottom$

        if *Pattern* is nonempty

            $symbol \leftarrow$ last letter in *Pattern*

            remove last letter from *Pattern*

            $top \leftarrow \text{FirstOccurrence}(symbol) + \text{Count}_{symbol}(top, LastColumn)$

            $bottom \leftarrow \text{FirstOccurrence}(symbol) + \text{Count}_{symbol}(bottom + 1, LastColumn) - 1$

        else

        return $bottom - top + 1$

    return