Kernel based methods such as Support Vector Machine (SVM) have been successful tools for solving many recognition problems. One of the reason of this success is due to the use of kernels. It is common knowledge that positive definiteness has to be checked for the kernel to be suitable for most of these methods. For instance for SVM, the use of a positive definite kernel insures that the optimized problem is convex and thus the obtained solution is unique. Another class of kernels called conditionally positive definite have been studied for a long time from the theoretical point of view and have drawn attention from the community only in the last decade. We here propose a new kernel, we named log kernel, which seems particularly interesting for images. Moreover, we prove that this new kernel is a conditionally positive definite kernel as well as the power kernel. Finally, we show from experimentations that using conditionally positive definite kernels allows us to outperform classical positive definite kernels.