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(54) **METHOD OF DIGITAL IMAGE ENHANCEMENT AND SHARPENING**

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(58) **Field of Search** 382/109, 113, 382/118, 275, 260–266

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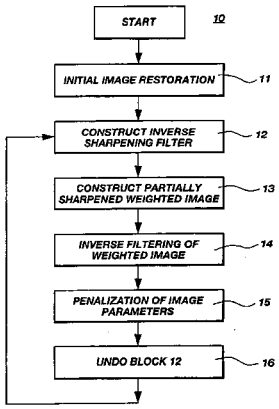
(57) **ABSTRACT**

A method of digital image enhancement and sharpening (**11**, **12**) which may be applied to restoration of blurred digital images of arbitrary origin. The method uses a specially formulated constraint (**15**) to reconstruct the original images. In particular, the constraint of the present method minimizes the area where strong image parameter variations and discontinuities occur. This new constraint is called a minimum gradient support (MGS) constraint. The MGS constraint generates a stable sharp solution of the linear ill-posed image restoration equation with an arbitrary blurring operator.

18 Claims, 4 Drawing Sheets