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(71) Applicant *(for all designated States except US)*: **SNOWFLAKE TECHNOLOGIES CORPORATION** [US/US]; Suite 300, 1256 Union Avenue, Memphis, Tennessee 38104 (US).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **MEENEN, Peter M.** [US/US]; #201, 7850 Grove Brook Ct., Germantown, Tennessee 38138 (US).

(74) Agent: **FENTRESS, Susan B.**; Suite 500, 6075 Poplar Avenue, Memphis, Tennessee 38119 (US).

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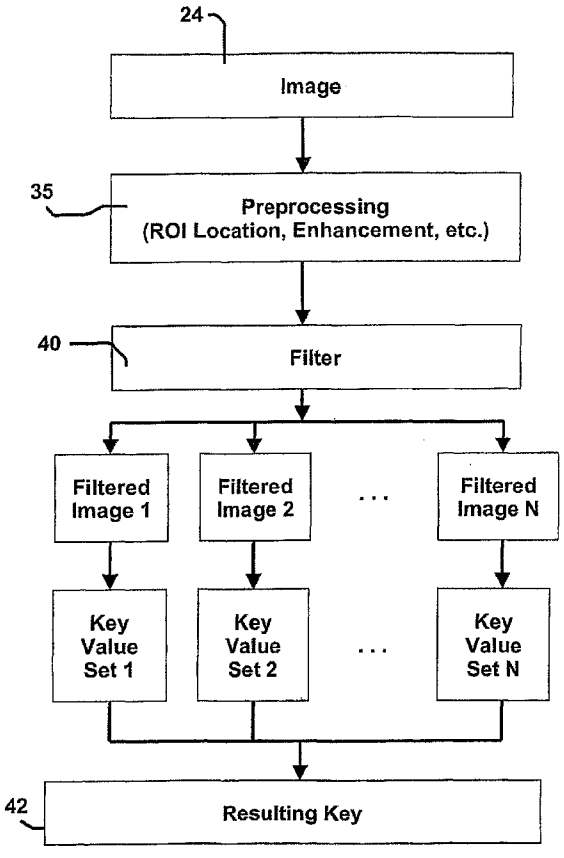
(54) **Title:** METHOD AND APPARATUS FOR EXTRACTION AND MATCHING OF BIOMETRIC DETAIL



(57) **Abstract:** A method and apparatus of identification by extracting and matching biometric detail from a subcutaneous vein infrared image. The image's Region of Interest is identified and artifacts are removed. A bank of filters, such as Symmetric Gabor Filters, Complex Gabor Filters, Log Gabor Filters, Oriented Gaussian Functions, or Wavelets, filters the image into a set of key value images that are subdivided into regions. An enrollment key, defined by ordered statistical measures of pixel intensities within the regions, is compared using a distance metric to a stored verification key. Various statistical measures may be used, such as variance, standard deviation, mean, absolute average deviation, max value, min value, max absolute value, median value, or a combination of these statistical measures. Various distance metrics may be used, such as Euclidean, Hamming, Euclidean Squared, Manhattan, Pearson Correlation, Pearson Squared Correlation, Chebychev, or Spearman Rank Correlation.

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