[54] **SELF-ORGANIZING PATTERN CLASSIFICATION NEURAL NETWORK SYSTEM**

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Related U.S. Application Data

[63] Continuation of Ser. No. 654,424, Feb. 12, 1991, abandoned.

[51] Int. Cl.⁵ **G06K 9/62**
[52] U.S. Cl. **382/15; 382/36;** 395/24
[58] Field of Search 382/14, 15, 36, 37, 382/38, 39; 364/274.9, 916.2; 395/21, 24, 27

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[57] **ABSTRACT**

A self-organizing pattern classification neural network system includes means for receiving incoming pattern of signals that were processed by feature extractors that extract feature vectors from the incoming signal. These feature vectors correspond to information regarding certain features of the incoming signal. The extracted feature vectors then each pass to separate self-organizing neural network classifiers. The classifiers compare the feature vectors to templates corresponding to respective classes and output the results of their comparisons. The output from the classifier for each class enter a discriminator. The discriminator generates a classification response indicating the best class for the input signal. The classification response includes information indicative of whether the classification is possible and also includes the identified best class. Lastly, the system includes a learning trigger for transferring a correct glass signal to the self-organizing classifiers so that they can determine the validity of their classification results.
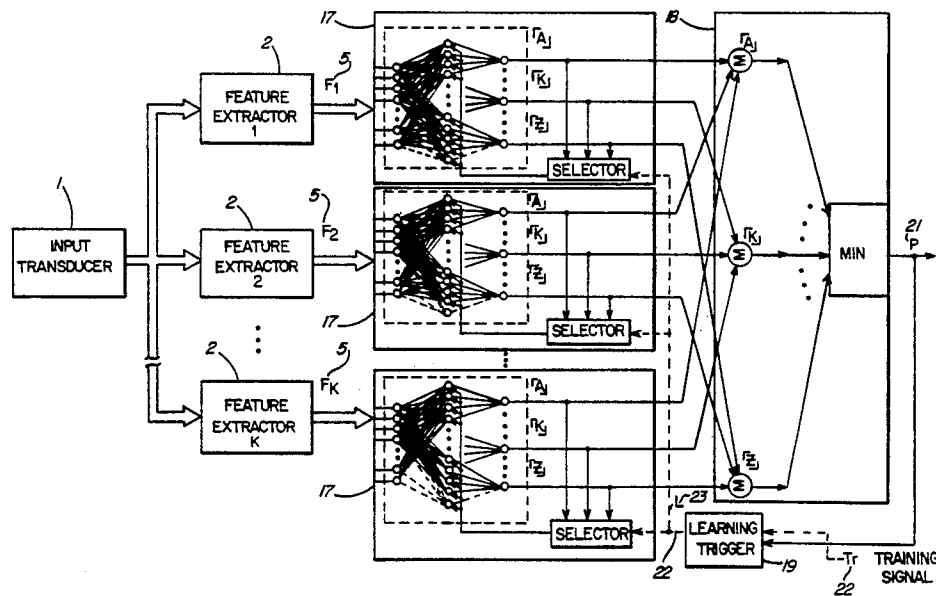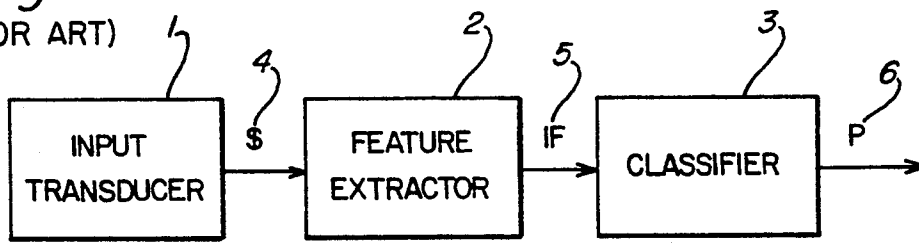
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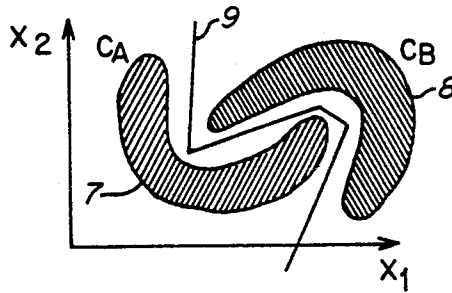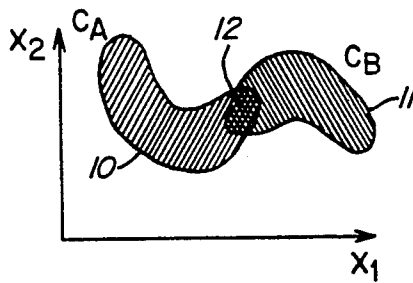
Fig.1
(PRIOR ART)

Fig.2
(PRIOR ART)

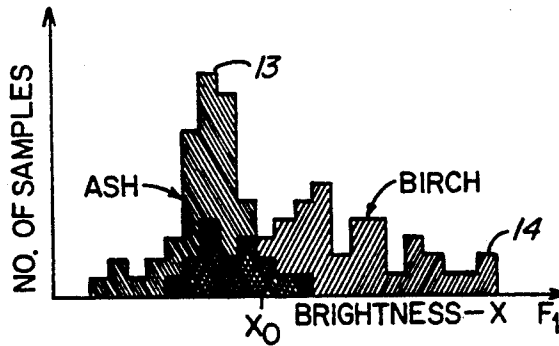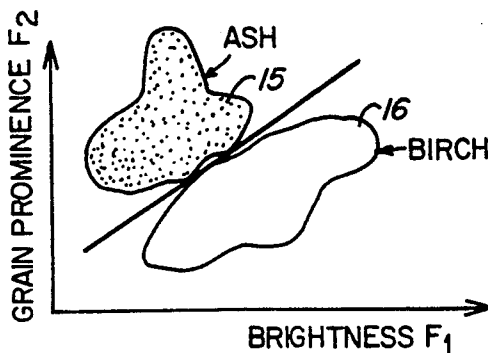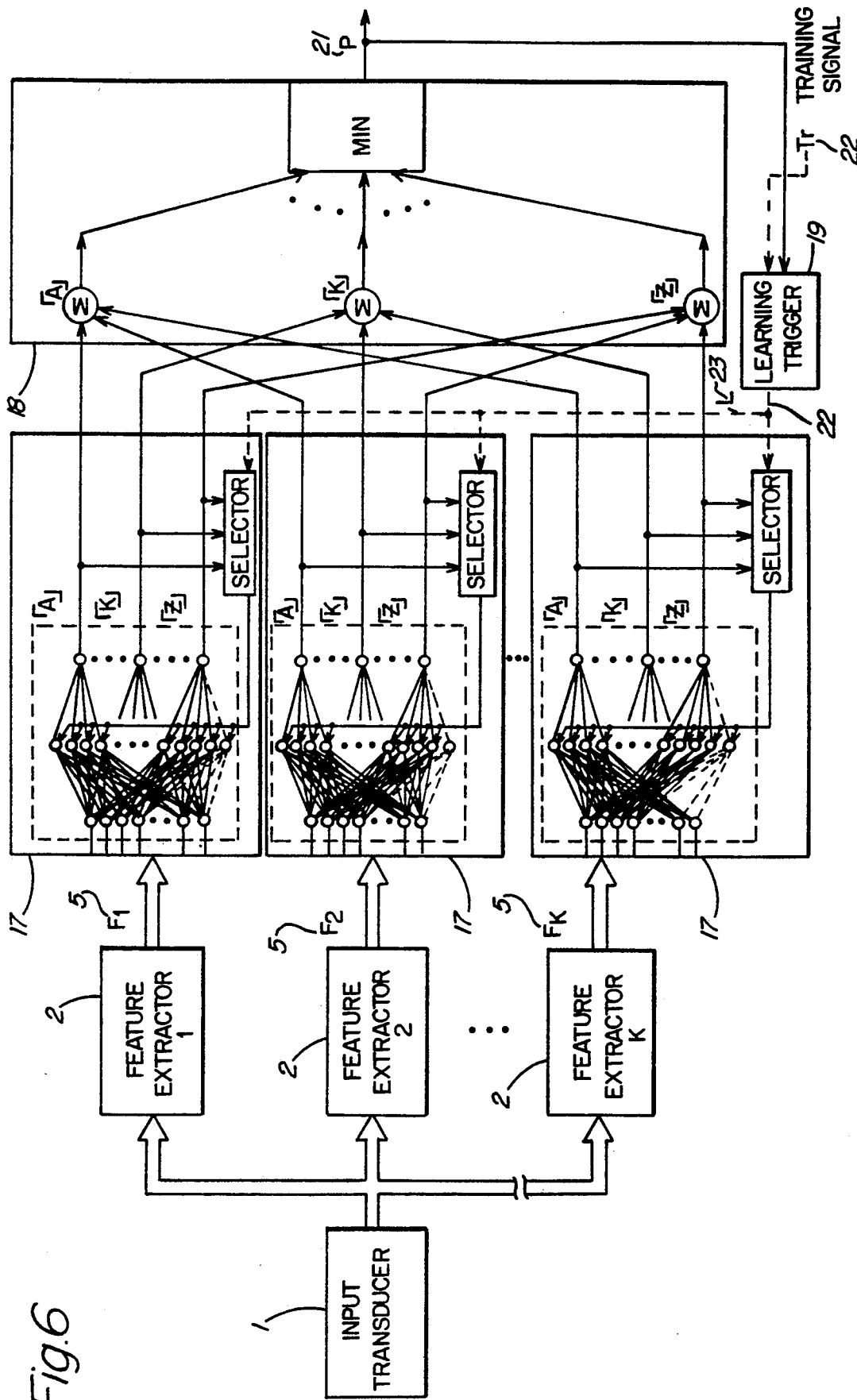
Fig.3
(PRIOR ART)

Fig.4
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Fig.5
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Fig.6

Fig.7

Fig.8

Fig.9
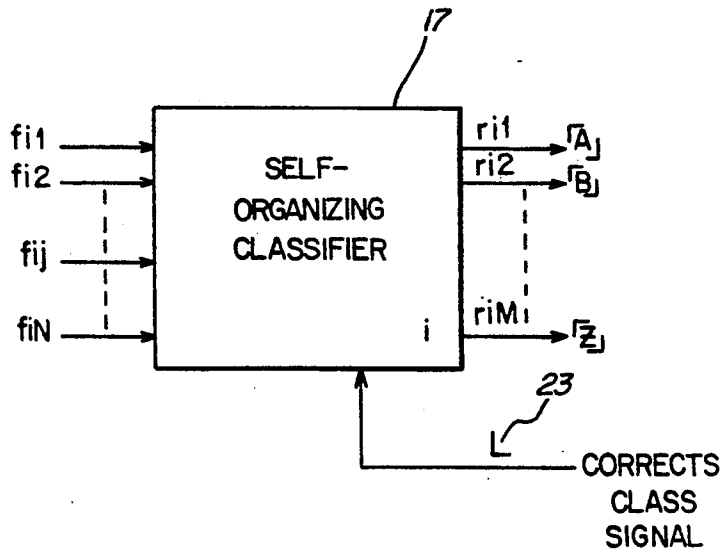

WEIGHT UPDATE SIGNAL

Fig.10

CORRECT
CLASS
SIGNAL

DOCKET ALARM
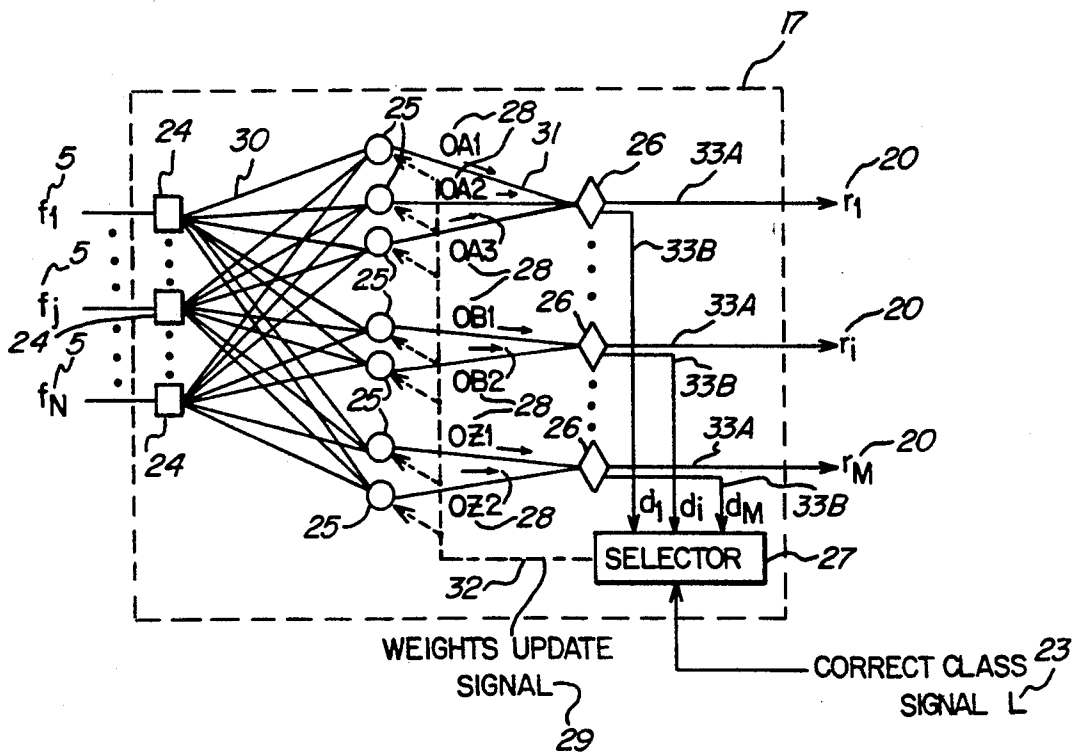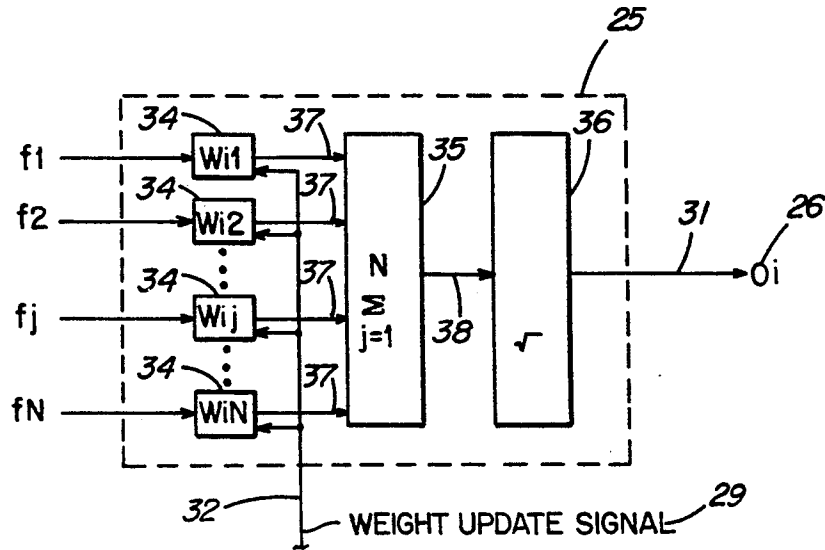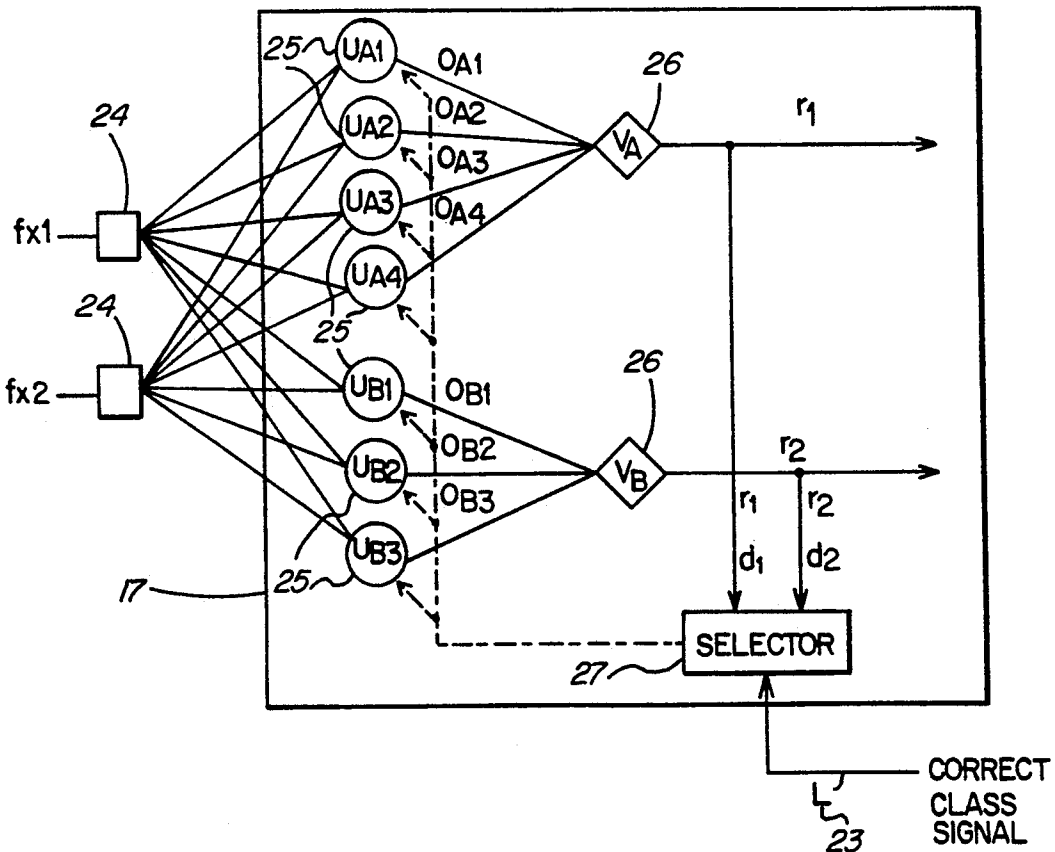
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