# United States Patent [19]

**Hamilton**

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[54] **NONINVASIVE DIAGNOSIS OF GASTRITIS AND DUODENITIS**


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[51] **Int. Cl.**[5] ..... **A61O 5/08**

[52] **U.S. Cl.** ..... **128/719;** 128/730; 128/898

[58] **Field of Search** ..... 128/632, 636, 716, 719, 128/730, 897, 898



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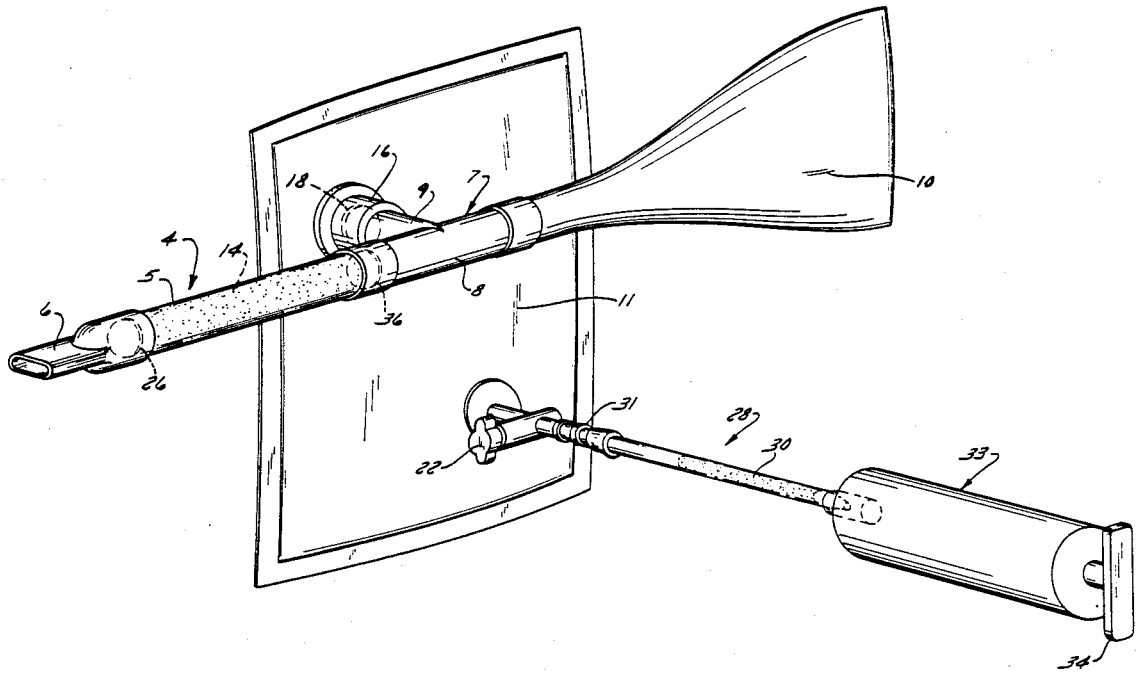
[57] **ABSTRACT**

A patient to be treated for the presence of *Campylobacter pylori* in the stomach and/or duodenum ingests a quantity of urea and after about 10 minutes exhales into breath collection apparatus to provide a breath sample of alveolar air, collected during the last part of the exhalation. Immediately upon issuing from the patient the expired breath is passed in contact with a preferably solid-state body of alkaline hygroscopic material, e.g. sodium hydroxide, that substantially removes water vapor from the breath but is inert to ammonia in the presence of water. The breath sample, thus dehydrated, is delivered to a sensor which signals the presence of ammonia in it, to indicate presence of *C. pylori* in the stomach.


**9 Claims, 2 Drawing Sheets**