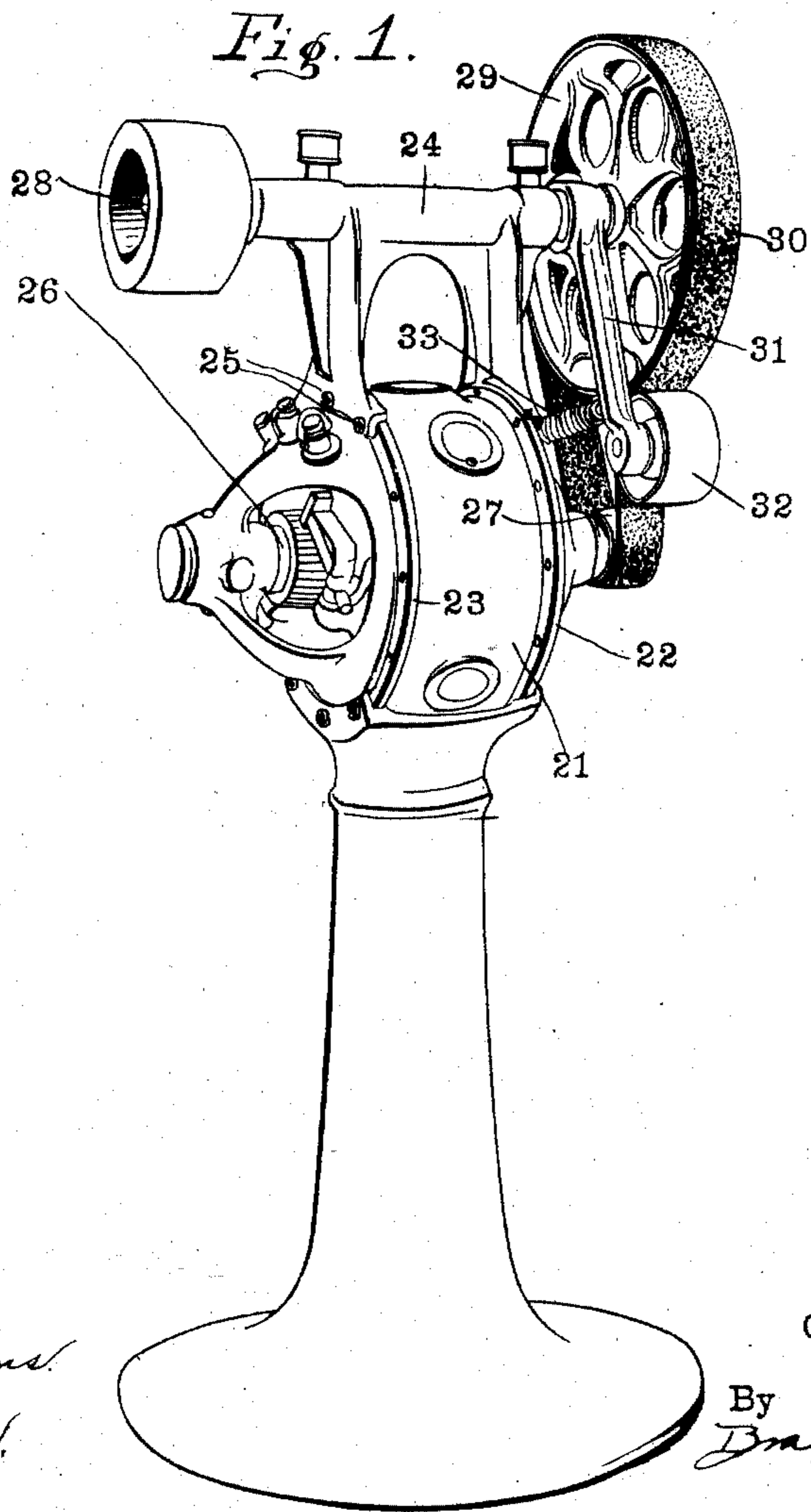
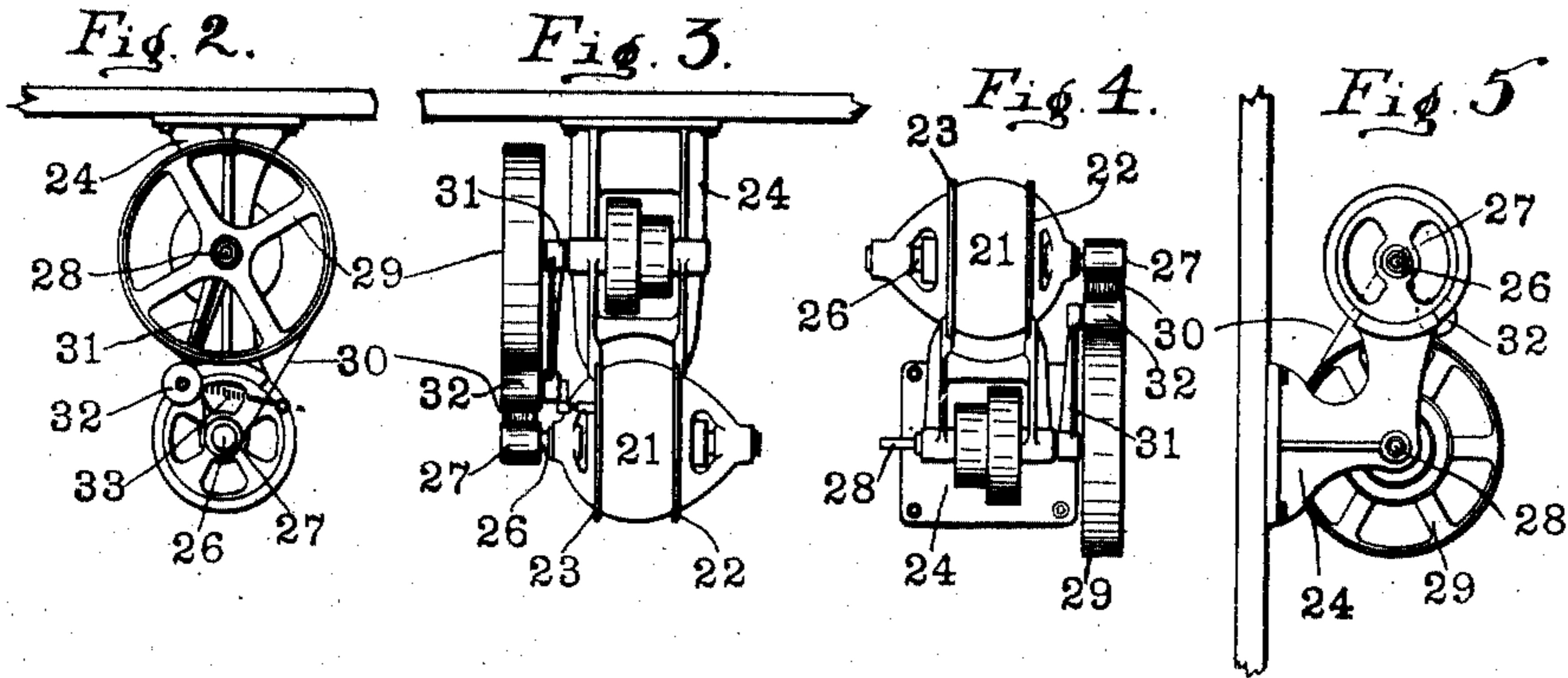


No. 864,846.

PATENTED SEPT. 3, 1907.

C. D. JENNEY.  
POWER TRANSMISSION DEVICE.  
APPLICATION FILED JUNE 23, 1904.



Witnesses  
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# UNITED STATES PATENT OFFICE.

CHARLES D. JENNEY, OF INDIANAPOLIS, INDIANA.

## POWER-TRANSMISSION DEVICE.

No. 864,846.

Specification of Letters Patent.

Patented Sept. 3, 1907.

Application filed June 23, 1904. Serial No. 213,836.

*To all whom it may concern:*

Be it known that I, CHARLES D. JENNEY, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Power-Transmission Devices, of which the following is a specification.

Electric motors run at a comparatively high speed. Consequently it is desirable that the pulleys by means of which power is transmitted from the armature shafts should be comparatively small. It is, therefore, desirable to use countershafts in connection with such motors in order to obtain the desired speeds of driven devices without using unduly large pulleys. It is a matter of great convenience that such countershafts should be located directly upon the frame or casing of the motor, so that, in effect, the motor and said shaft shall be a single machine; or, in other words, that the structure including the countershaft shall be self-contained. To reach this result makes it necessary to use a very short belt, and such a belt when running from a small to a large pulley is liable to considerable slippage unless kept quite tight, as the arc of such small pulley on which it bears is quite small. As belts stretch considerably under use, it is not easy to keep such short belts under proper tension without using a belt tightener. As motors of this character are to be used in a great variety of positions, it is also desirable in many instances that the countershafts should be adjustable circumferentially of the body of the motor in order that the belt to the driven devices may be led off in the proper direction without interfering with other parts. All these considerations have led to the devising of my improved means of transmission, as will be hereinafter more fully described and claimed.

Referring to the accompanying drawings, which are made a part hereof and on which similar reference characters indicate similar parts, Figure 1 is a perspective view of an electric motor, its countershaft, belt, and tightener, constructed and arranged to embody my present invention, said motor being mounted upon a pedestal; Figs. 2 and 3 a side and front elevation respectively of such a motor when supported by hangers attached to an overhead ceiling or beams, and Figs. 4 and 5 similar views where the motor is mounted on brackets carried by a vertical wall or post. The motor, countershaft, belt, and tightener, are alike in all the several cases, and the views 2 to 5 inclusive simply illustrate different mountings, showing some of the different positions in which apparatus embodying my invention may be placed.

The motor 21 is of a well-known type. It is provided

with circular flanges 22 and 23 by means of which it is capable of being mounted on a suitable base or support in a well-known manner. Upon these same flanges I mount a bracket 24, which in my preferred form is adjustable circumferentially of the motor on said flanges, and is adapted to be secured thereto at any desired point and by any suitable means, as by bolts 25. Upon the armature shaft 26 is the usual driving pulley 27 and upon the countershaft 28 is a driven pulley 29, and over these two pulleys a belt 30 runs. Swinging upon a suitable bearing on the bracket 24 is an arm 31, which carries an idler pulley 32, and which is held inwardly against the belt by means of a spring 33 connected at one end to a point on the bracket 24 and at the other end to the arm 31.

By the means in question not only can the shafts 26 and 28 be kept equidistant from each other at all points of adjustment, but the tightener may also be kept constantly in the same relative position to the pulleys and the belt, and I am thereby enabled to quickly and conveniently adjust the countershaft relatively to the motor-shaft entirely regardless of these other parts, as will be readily understood.

Having thus fully described my said invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a power transmission device, the combination with a high speed motor having a belt pulley upon its power-shaft, of a countershaft-bracket having a countershaft-bearing, means for attaching said bracket to the motor frame at various points substantially concentric with the power-shaft, a countershaft journaled in said bearing, a comparatively large pulley carried by said countershaft in belting alinement with the power-shaft pulley, a belt connecting said pulleys, an idler pulley carried by the structure, and means for holding said idler pulley in engagement with the said belt.

2. In a power transmission device, the combination with a high speed motor having a belt pulley upon its power-shaft, of a countershaft-bracket having a countershaft-bearing, means for attaching said bracket to the motor frame at various points substantially concentric with the power-shaft, a countershaft journaled in said bearing, a comparatively large pulley carried by said countershaft in belting alinement with the power-shaft pulley, a belt connecting said pulleys, an arm pivoted upon the countershaft, an idler pulley carried by said arm in the same plane with the belt pulleys, and means for swinging said arm upon the countershaft to hold the idler pulley in engagement with said belt.

In witness whereof, I, have hereunto set my hand and seal at Indianapolis, Indiana, this 18th day of June, A. D. one thousand nine hundred and four.

CHARLES D. JENNEY. [L. S.]

Witnesses:

ARTHUR M. HOOD,  
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