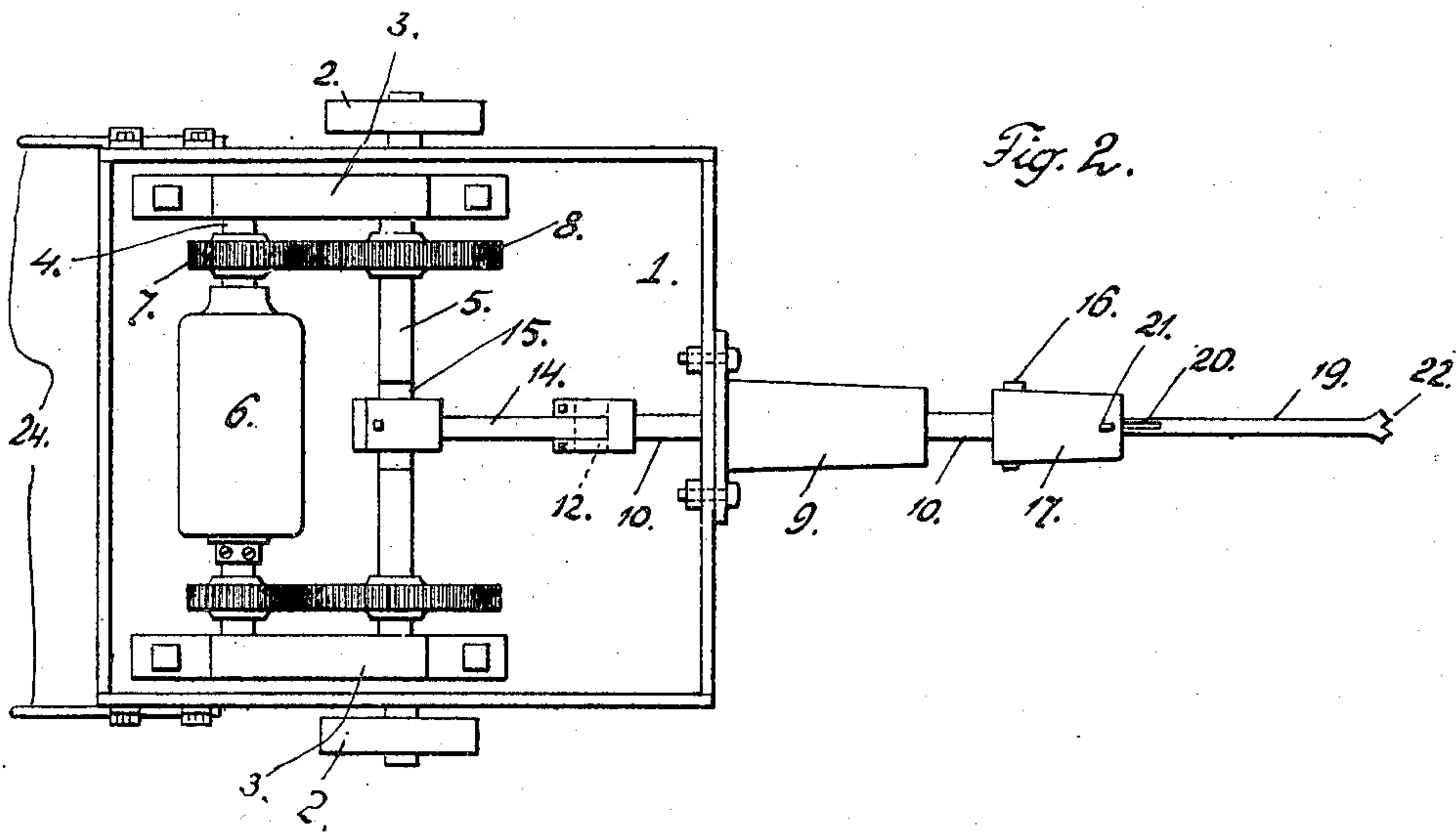
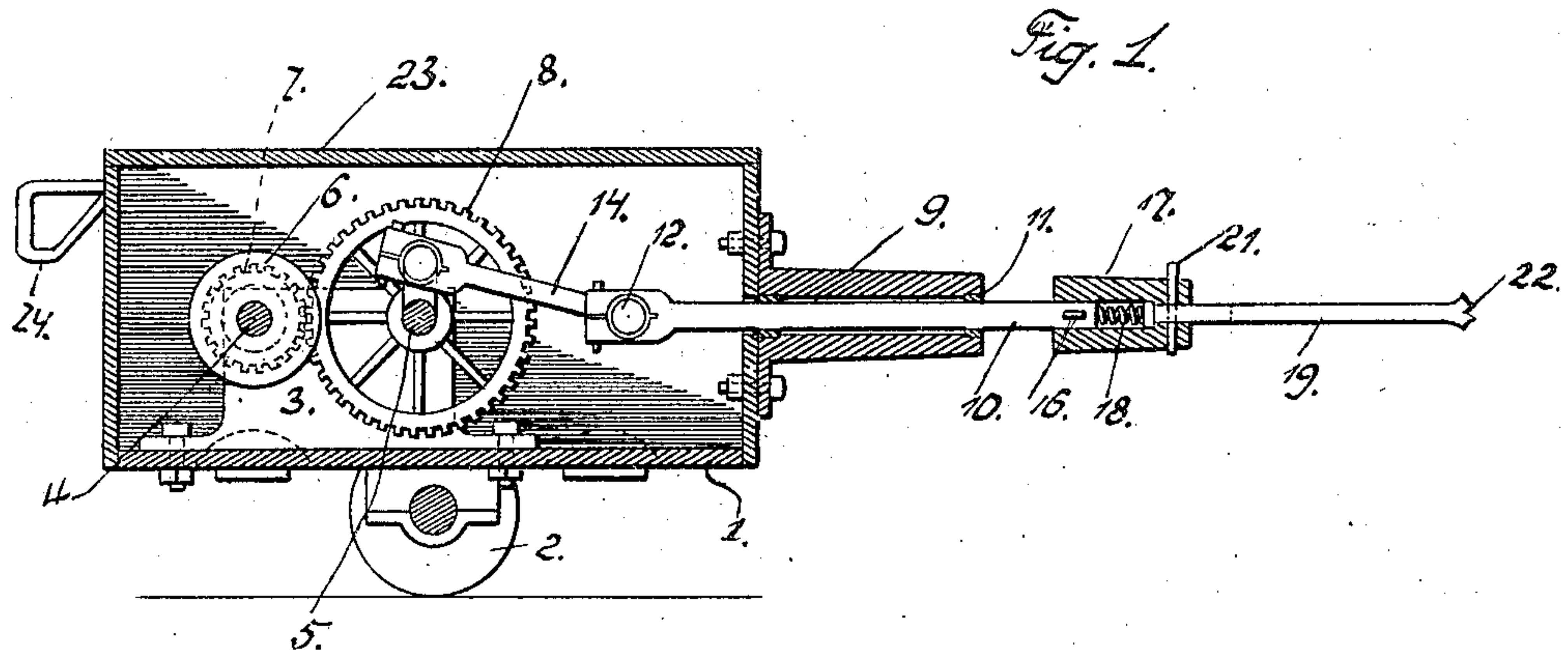


No. 875,296.

PATENTED DEC. 31, 1907.

H. SPECHT.
MINING MACHINE.

APPLICATION FILED JUNE 11, 1907.



WITNESSES:
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UNITED STATES PATENT OFFICE.

HARRY SPECHT, OF FROSTBURG, PENNSYLVANIA.

MINING-MACHINE.

No. 875,296.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed June 11, 1907. Serial No. 378,382.

To all whom it may concern:

Be it known that I, HARRY SPECHT, a citizen of the United States of America, residing at Frostburg, in the county of Jefferson and State of Pennsylvania, have invented certain new and useful Improvements in Mining-Machines, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to improvements in mining machines, and the invention has for its object to provide a novel machine having a reciprocatory pick, drill or bit, the machine being particularly designed for coal mines.

15 My invention aims to provide a machine that can be manually guided during its operation, the pick or drill of said machine being automatically reciprocated to impinge the coal within a mine and either remove the same or drill an opening, whereby the coal can be blasted. To reciprocate the pick or drill, I employ a motor located upon the machine and operated from a suitable source of electrical energy.

20 The detailed construction entering into my invention will be presently described and then specifically pointed out in the appended claims.

30 Referring to the drawing forming a part of this specification, Figure 1 is a longitudinal sectional view of a mining machine constructed in accordance with my invention, and Fig. 2 is a plan of the same, with the cover of the machine removed.

35 To put my invention into practice, I construct my machine of a box-like structure 1, mounted upon a truck 2, whereby the machine can be easily moved. In the box-like structure 1 are arranged bearings 3, for the ends of shafts 4 and 5, the shaft 4 serving functionally as the armature shaft of a motor 6 located in the structure 1. The shaft 4 is provided with spur wheels 7 meshing with large spur wheels 8, mounted upon the shaft 5.

40 The front side of the box-like structure 1 is provided with a bearing 9 for the reciprocating rod 10, said piston bearing directly upon brasses 11 located in the bearing 9. The inner end of the rod 10 is connected to the wrist pin 12 of a pitman 14, said pitman being connected to the crank arm 15 located centrally of a shaft 5.

55 Secured upon the outer end of a rod 10 by a key 16 is a housing 17 for a coil spring

18. Contacting with the spring 18 is a pick or drill 19, the inner end of said pick or drill being slotted, as at 20, and retained within the housing by a key 21 passing through the slot of said pick or drill. The outer end of the pick or drill is provided with cutting edges 22.

60 Detachably mounted upon the box-like structure 1 is a lid or cover 23, while the rear end of said structure is provided with handles 24, by virtue of which the machine is guided and moved.

70 To operate the machine a suitable source of electrical energy is employed and connected with the motor 6, whereby, when an electrical current passes through the motor 6, the rod 10 will be reciprocated through the medium of the pitman 14 and shaft 5.

75 In loosely mounting the pick or drill 19 in the housing 17, I prevent the machine from being suddenly jarred during the operation of a pick or drill, the spring 18 compensating any sudden or uneven movement imparted to the pick or drill, while the same is in operation.

80 I do not care to confine myself to the manner of controlling the source of electrical energy or the operation of the motor, as the same may be controlled at the machine, indirectly or directly.

85 In detachably mounting the pick or drill in the housing 17, I am enabled to remove the pick or drill to sharpen or renew the same.

90 Such variations in the size, proportion and minor details of construction, as are permissible by the appended claims, can be resorted to, without departing from the spirit and scope of the invention.

95 Having fully described my invention, what I claim and desire to secure by Letters Patent is:

100 A mining machine comprising a portable box-like structure, wheels connected with said structure, said wheels arranged approximately centrally of the structure, bearings arranged within and supported by the bottom of the structure at each side thereof, a crank shaft journaled in said bearings approximately centrally of said structure and carrying a plurality of spur wheels, a motor arranged in said structure at the rear thereof and having its shaft journaled in said bearings, spur wheels carried by the motor shaft and engaging the said wheels upon the crank shaft, a forwardly extending bearing sleeve

secured to the outer face of the front wall of
said structure approximately centrally there-
of, a reciprocatory rod extending through the
said front wall and said sleeve, a housing
5 mounted upon the outer end of the rod, a
drill connected to the housing, a spring ar-
ranged in the housing and interposed be-
tween the outer end of the rod and the inner
end of the drill, and connections between the

rod and the crank shaft for reciprocating the 10
former when the latter is operated.

In testimony whereof I affix my signature
in the presence of two witnesses.

HARRY SPECHT.

Witnesses:

R. E. CAMPBELL,
J. B. COUCH.