

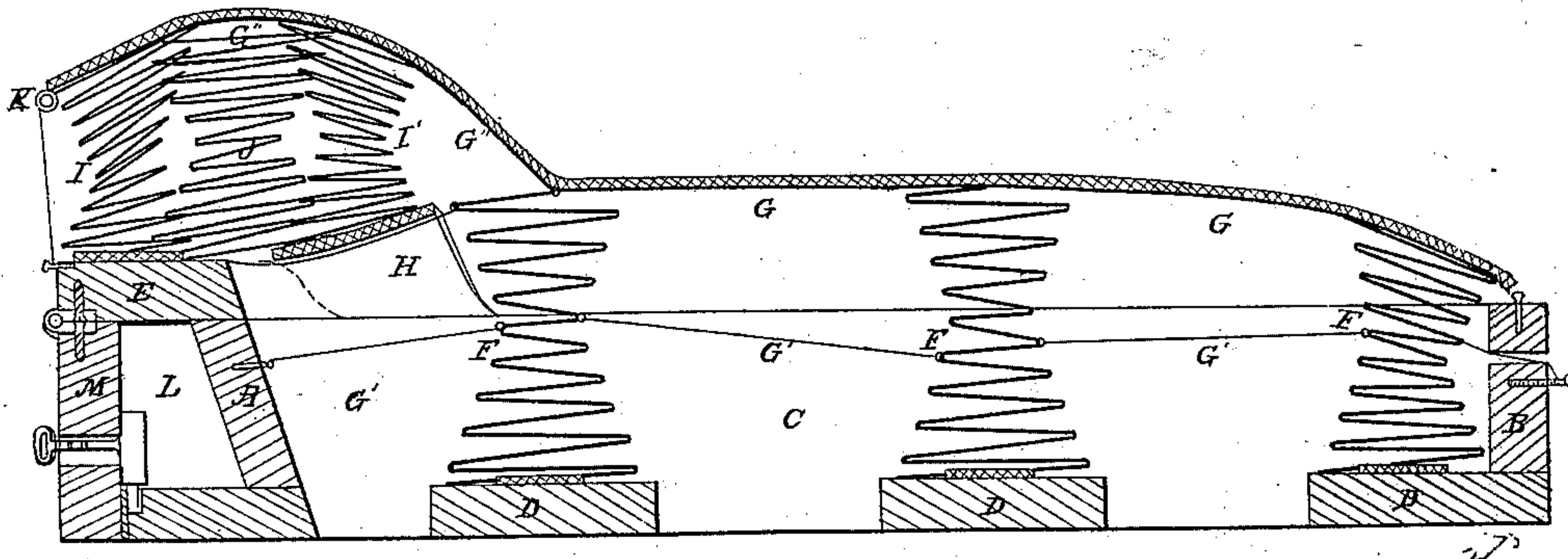
*J. G. F. Grote,*

*Bed Head-Section,*

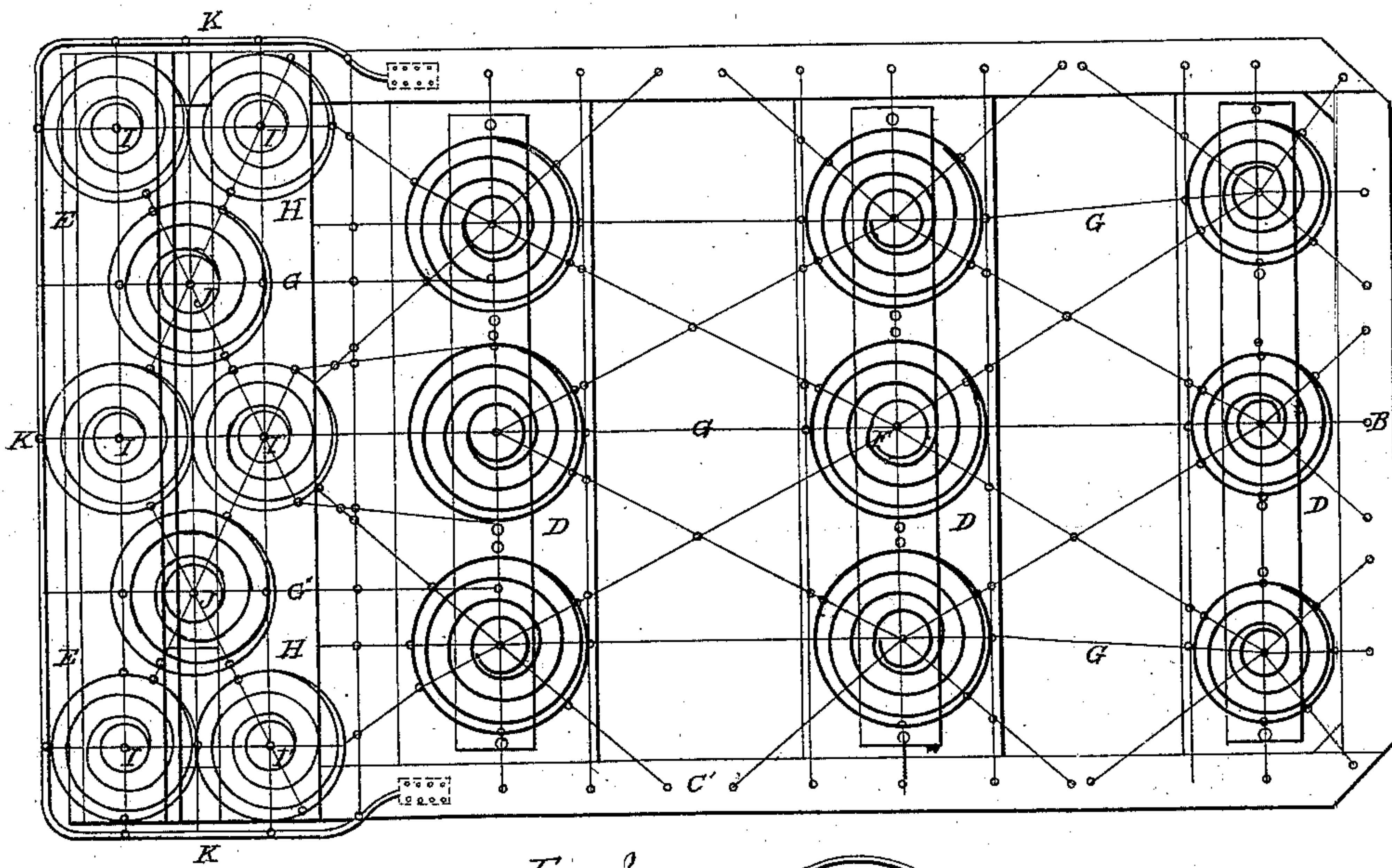
*N<sup>o</sup> 42,368.*

*Patented Apr. 19, 1864.*

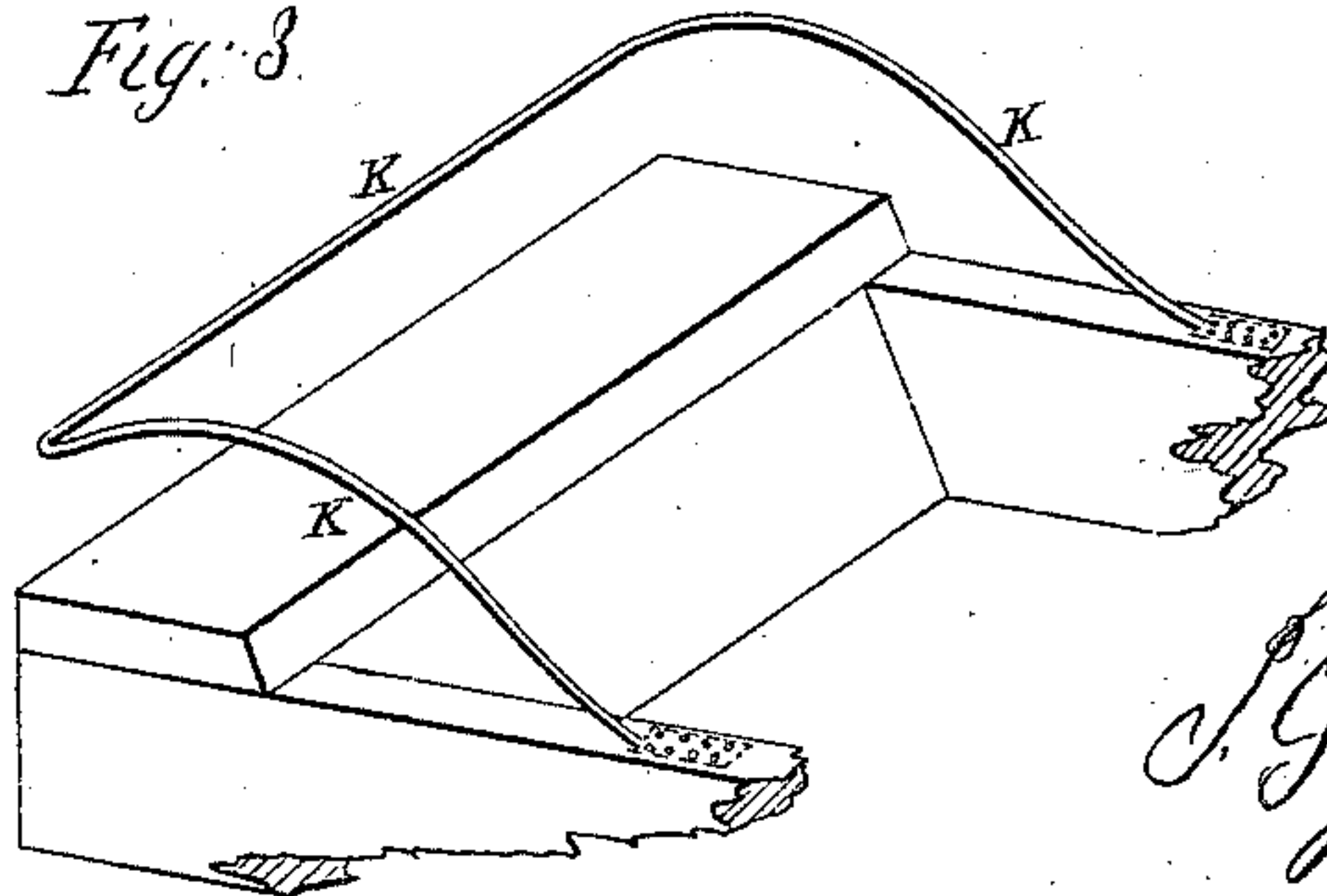
*Fig: 1.*



*Fig: 2.*



*Fig: 3.*



*Witnesses;*

*James H. Layman  
C. P. Burger*

*Inventor;*

*J. G. F. Grote  
per Knight Bros  
attys*



# UNITED STATES PATENT OFFICE.

JOHN G. F. GROTE, OF CINCINNATI, OHIO.

## IMPROVED SPRING-MATTRESS.

Specification forming part of Letters Patent No. 42,368, dated April 19, 1864.

*To all whom it may concern:*

Be it known that I, JOHN G. F. GROTE, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Spring-Mattresses; and I do hereby declare the following to be full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

My improvement relates to the class of spring-mattresses which are provided with an elevated portion at one end, called a "head-rest," intended to dispense with a separate bolster; and my present invention consists of such an arrangement, adaptation, and construction of the yielding and supporting parts as to avoid the defects and inconveniences which have hitherto rendered such mattresses practically useless.

Figure 1 is a longitudinal section of my improved mattress. Fig. 2 is a top view of the same without the ticking. Fig. 3 represents my yielding head frame.

I provide a wooden frame, consisting of head and foot rails A and B, side rails, C and C', bottom cross-rails, D, and a top cross-rail, E.

The body-springs F rest upon and are supported by the bottom cross-rails, D.

The tops of the body-springs F are all connected together and secured to the frame by means of a net-work of cords, G G', and are further secured by means of the longitudinal cords, which, extending from the top rail, A, to the bottom one, B, are attached to the middle of the springs F.

H is a band formed of stout "webbing," supported partly upon the cord-work G and partly by attachment of its ends to the side rails, C and C', of the frame. Supported upon and attached to the upper cross-rail, E, is a range of slender springs, I, which constitute the extreme tier at the head end of the mattress. A range of springs, I', of similar strength, attached to and supported by the band H, serves to maintain the convexity of that part of the head-rest intended to fit into the hollow of the neck.

Midway between the two ranges of springs

I and I' is a range of springs, J, intermediate in strength between the body-springs F and the springs I I', and somewhat higher than the latter. The springs J rest partly upon the top cross-rail, D, and partly upon the band H.

The springs I, I', and J, belonging to the head-rest, are all retained at their proper relative positions while yielding freely to any pressure by their connection by means of cords G'', attached to an elevated and yielding head-frame, K, bowed or rounded upward to correspond with the convexity of the bolster.

The independent system of yielding and sustaining parts which go to make up the head-rest enables the "body" to be depressed without dragging the head-rest out of shape or lessening its convexity, my form differing in this respect from the common elevated head-rests, which are liable to assume the form of inclined planes, having the extreme head or top edge too much elevated and too unyielding, and the part which should fit into the hollow of the neck too much depressed.

The head end of my frame may be partitioned off into a box, L, having a lid, M, secured by a lock and key or other fastening.

It will be seen that my arrangement opposes no slat or other unyielding object to the neck or shoulders of the occupant, as is too often the case in mattresses of this class.

I claim herein as new and of my invention—

1. The arrangement of frame A B C C' D E, body-springs F, cording G G' G'', band H, yielding head-frame K, and graduated springs I, I', and J, the whole being combined and operating together as set forth.

2. The described combination of head-frame K, cords G'', and graduated springs I I' J, resting partly upon the frame and partly upon the yielding band H.

In testimony of which invention I hereunto set my hand.

J. G. F. GROTE.

Witnesses:

GEO. H. KNIGHT,  
OCTAVIUS KNIGHT.