



J. RUSSELL.

Domestic Telegraph.

No. 5,862.

Patented Oct. 17, 1848.

Fig. 2.

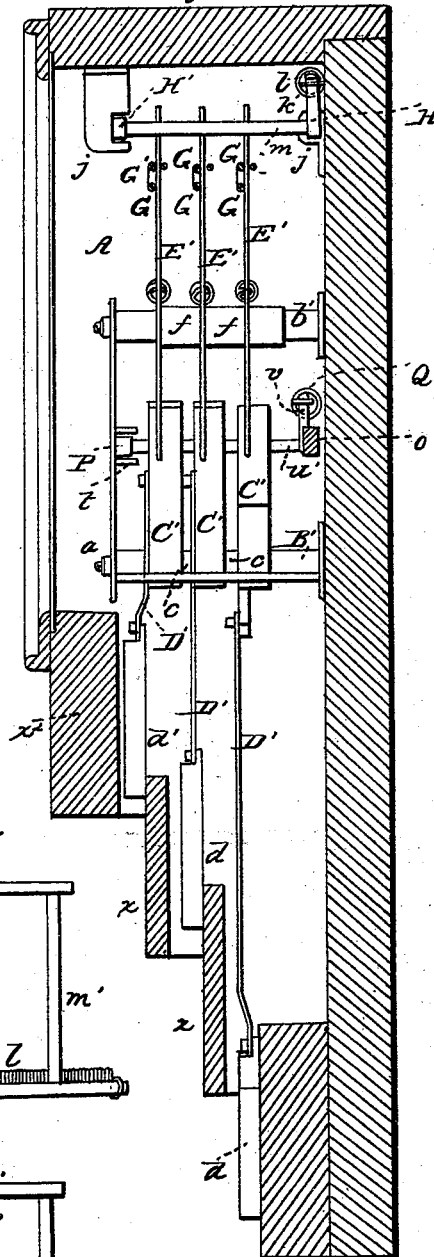


Fig. 3.

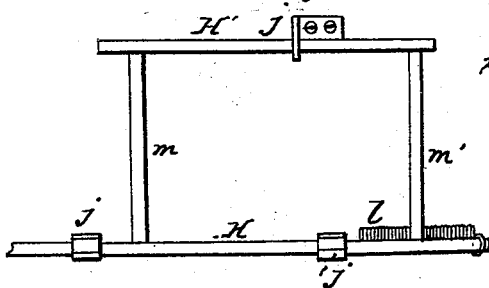
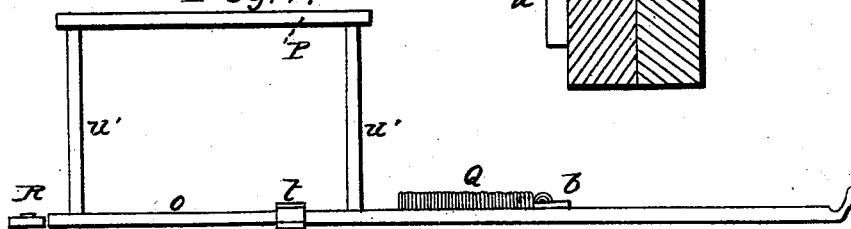


Fig. 4.



# UNITED STATES PATENT OFFICE.

JOHN RUSSELL, OF NEW YORK, N. Y.

## DOMESTIC TELEGRAPH.

Specification of Letters Patent No. 5,862, dated October 17, 1848.

*To all whom it may concern:*

Be it known that I, JOHN RUSSELL, of the city, county, and State of New York, have invented a new and useful Improvement in the "Domestic Telegraph" for Hotels, Private Houses and other Places, called "Russell's Telegraphic Index," which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1, is a front elevation of the telegraphic index. Fig. 2, is a vertical cross section of ditto, at the line  $x x$  of Fig. 1. Fig. 3 is a plan of the sliding frame for ringing the bell when the index is thrown out. Fig. 4 is a plan of the sliding frame for drawing in the index.

Similar letters in the figures refer to corresponding parts.

The nature of this invention consists in connecting the wires, leading to the several rooms of the hotel or other building to which the telegraph is applied, to a series of inclined levers combined with sliding bars, spiral springs, weighted levers, and suspended plates marked with the several numbers of the rooms, with which the wires communicate, combined with a bell, hammer, and suitable mechanism for operating the same, and inclosed in a suitable case arranged conspicuously in the room of the clerk or servant whose duty it is to attend to answering the bell; in such a manner, that when a bell-pull of a room is drawn, the plate, containing the number of the room in which the summons is made, will be caused to fall below the part of the case covering the same, and exposed to the view of the servant, and remain down until drawn up by him; and simultaneously with its descent, the hammer will be caused to strike the bell, to call the attention of the attendant to the number down, thus making one bell answer for all the rooms of the hotel, or other building in which the apparatus is arranged, and exposing conspicuously to view the number of the room in which the bell pull is drawn; so that should the attendant be absent at the time of the summons, the number will remain down until his return, and render a second summons unnecessary.

A is the oblong case in which the levers, &c., necessary for operating six numbers are arranged, secured firmly against the wall.

The lower part of this case is partially open, being formed by parallel longitudinal boards  $x$ , set on edge, about  $\frac{1}{2}$  inch apart, at different heights, so as to overlap each other, the upper edges of those near the wall being above and behind the lower edges of those in front, and hid from view, as represented in Fig. 2.

B, B', are horizontal axles or rods, secured to the back of the case, and extending to near the glass front of the same.

C, C', are weighted levers, bent near their centers to resemble an acute angle, and suspended at that part to the horizontal shafts or rods B, B', which are inserted through openings in them, said levers being held in their places, the required distance apart, by nuts  $a$ , and shoulders  $c$ , and having a preponderating weight at one end, by reason of that end being made larger than the opposite one.

D D' are bars, suspended to the light ends of the levers by pins, and having circular plates  $d d'$  secured to their lower ends, on which the respective numbers of the rooms are legibly marked.

E, E', are inclined levers, suspended by horizontal shafts or rods  $b, b'$ , on which they move as fulcrums, being kept in their places above the levers C, C', by shoulders and nuts,  $e, f$ , and curved and rounded at their lower ends; against which the weighted ends of the levers C, C', rest.

F are spiral springs, attached to a hook  $g'$ , formed on the inclined levers E', suspended on the right hand horizontal axle or rod  $b'$ , above their fulcrum, and to a similar formed hook  $g$ , on the inclined levers E, on the left hand axles or rods  $b$ , below their fulcrum, for assisting to bring them to their inclined positions, after being drawn by the bell-pulls.

G G' are wire rods, attached to the inclined levers, near their upper ends, and extending through the end of the case to the outside, and having perforated shoulders  $h$ , on their outer ends, which rest against an oblong plate  $i$ , on the outside of the case, for preventing the upper ends of the inclined levers, from being forced beyond the position represented in Fig. 1, to which shoulders are attached the wires leading to the several rooms of the hotel or other building.

H is a horizontal sliding bar, moving in

bearings *j*, secured to the top and back *A'*, of the case, and having a hook *k*, at one end, to which is attached the end of a spiral spring *l*, attached at its opposite end to a pin in the back of the case.

*H'* is a smaller bar, arranged parallel to the one above named, and secured to one end of the same, outside the inclined levers *E*, *E'*, by horizontal rods *m m'*, extending from one to the other, on the right hand of the upper ends of the inclined levers.

*I* is a pawl turning on a pin, inserted in the bar *H*, near one end, and having an angular lip *n* or projection, at one end, which rests against a pin *o* projecting from the side of the bar *H*, for keeping the opposite end of the pawl elevated.

*J* is a crooked lever, bent near the middle to resemble an obtuse angle, and turning on a pin *p*, at that part, as a fulcrum, inserted in the back of the case below the sliding bar, and having a hook *p'*, formed on its lower end, to which is attached the upper end of a spiral spring, *q*, attached at its lower end to the back of the case, for keeping the upper end of the lever against the pawl *I*.

*K* is another lever, also bent to resemble an obtuse angle, and turning on the pin *p*, as a fulcrum, at its bent part, outside the lever *J*, and having a block of iron or hammer *r*, attached to its lower end for striking the bell.

*L*, is a semi-spherical bell, secured to a right angled plate *s* fastened to the back of the case.

*M* is a pin projecting from the side of the lever *J* near its lower end, designed to strike against the under curved edge of the upper part of the lever *K*, when the lever *J* is turned on its fulcrum, by the pawl, and cause the hammer to be moved from the bell.

*N* is a pin projecting from the inside of the lever *K* near its upper end, and resting against the left edge of the lever *J*, above its fulcrum.

*O* is a horizontal sliding bar, arranged below the bar *H*, and moving in bearings *t* secured to the back and end of the case, and extending through a mortise in the end of the case, and projecting beyond the outside of the same a sufficient distance to enable the operator to lay hold of its end; or to attach a handle.

*P* is a smaller bar, parallel with the ones just named, and secured to the same by horizontal rods *u u'* against which the weighted ends of the levers *C* rest, when thrown over by the lower ends of the inclined levers *E*, *E'*.

*Q* is a spiral spring attached at one end to a hook *v*, projecting from the upper edge of the sliding bar *O*, and at the other end to a pin inserted in the back of the case.

*R* is a metallic block or stop secured to

the back of the case, against which the end of the sliding bar *O* strikes and rests.

To illustrate the operation of the index, I will suppose the bell pull of room No. 2 connected by wires to the wire rod *G'*, to be drawn. This will cause the lower end of the inclined lever *E'* to move to the left and turn the weighted lever *C'* on its fulcrum, and cause its preponderating weighted end, to be transferred from the right to the left hand side of its fulcrum, when it will fall by its own gravity on the rod *u'*, and plate *d'* containing the number, will be caused to descend and appear to view below the part of the case, *w*<sup>2</sup> by which it was covered, and simultaneously with these results, the upper end of the inclined lever *E'*, moving to the right will strike against the rod *m'*, secured to the end of the sliding bar *H*, and move the same with it, causing the pawl *I*, at the opposite end of the bar, to also move and turn the lever *J*, on its fulcrum *p*, and the pin *M*, near its lower end, to strike against the under curved edge, of the upper end of the lever *K*, having a block or hammer *r*, on its lower end, and to turn said lever on its fulcrum, until the bell-pull is let go, when the sliding bar *H* and pawl *I*, and lever *E'*, resting against the rod *m'*, connecting one end of the parallel bars *H*, *H'*, together, will be drawn to their original positions by the spiral springs *l*, *F*; and the hammer *r*, caused to strike the bell *L*, by the combined agency of its own gravity, and the pressure of the upper part of the lever *J*, exerted against the pin *N*, by the spiral spring *q*. The lower sliding bar *O*, is then drawn to the right, which causes the rod *u'*, upon which the weighted end of the lever *C'*, rests, to turn said lever to its original position, and the numbered plate *d'*, to be raised. This is done by the servant after he has seen the number that he is summoned to answer.

It will be observed from the foregoing description, and reference to the drawings, that the inclined levers *E*, *E'*, on the upper rods *m m'*, against whose lower ends, the upper ends of the weighted levers rest, act independently of each other; and that no matter which of the wire rods attached to them are drawn, the hammer will be caused to strike the bell, and the number, corresponding with the number of the room to which the wire attached to the shoulder of said wire rod, communicates, caused to descend below the part of the case covering the same and exposed to full view, and that it must remain in that position until the arrival of the servant whose duty it is to draw it up into the case by moving the parallel bars *O*, *P*, before he departs to answer the call, thus the evil experienced in other arrangements, is avoided, of having the number drawn up out of sight by the next

summons from another room before the arrival of the servant whose duty it was to answer the first call.

In Fig. 1, the portion  $\alpha^2$  Fig. 2 of the case is removed in order to show the operative parts and the numbers 1 and 2 raised. The dotted lines represent the positions these numbers would assume, when thrown down below the front of the case. No. 6 is represented as thrown down below the board  $\alpha$  of the case in front of the same. The other numbers are all represented as raised.

The case may be made of any required length and depth to contain any required number of indexes, by the number of boards  $\alpha$  of the case, being increased, in proportion to the number of indexes, and wires.

I do not claim to be the original inventor of combining mechanism for the purpose of simultaneously striking the alarm and exposing the number of the room whence the alarm is given, by the use of a single bell and then concealing the number before the summons is answered as this invention has been patented, but,

What I do claim as my invention is—

The particular combination and arrangement of the sliding bars H, O, pawl I, bent levers J and K, hammer  $\gamma$ , bell L, levers E E', tumblers C C', bars D D', springs  $\lambda$ ,  $q$ , F, Q, and case A made with aprons  $\alpha$  arranged at different levels and projections in the manner and for the purpose herein set forth by which an alarm is given simultaneously with exposing the number and causing it to remain exposed until drawn in and concealed by the person summoned or other person in attendance in a manner different from the mode heretofore patented, being much more simple, effectual, and economical than any of said modes of domestic telegraphing.

In testimony whereof I have hereunto signed my name before two subscribing witnesses.

JOHN RUSSELL.

Witnesses:

WM. P. ELLIOT,  
A. E. H. JOHNSON.