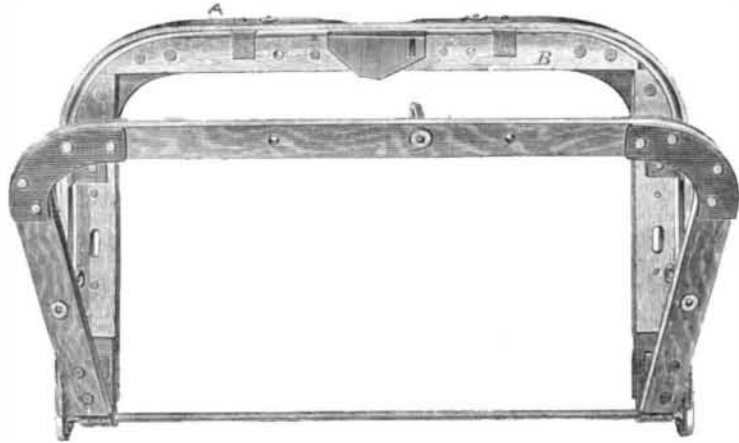


**Improved Carpet-bag Frame.**

This frame is made of wood stayed with iron, and the advantages to be derived from so constructing it are, that it is cheaper to manufacture by one-third, is more easily transported, and is much lighter. The iron frames commonly used require to be covered with cloth to conceal the rivet heads employed to fasten them together before attaching the outside coverings. The wood in this frame is got out straight, as shown, and needs no bending, the several pieces being united by metallic guards. The corners of the wooden portion are rounded off, and the metal stays or braces are stamped out with dies, so that they also are cheaply made. The top or bow, A, is the only

**LAGOWITZ'S CARPET-BAG FRAME.**

bent piece, and this is fastened securely by the stays, B, to the side frame. In other respects this frame is not peculiar. A patent was procured on it through the Scientific American Patent Agency on the 16th of September, 1863, by Samuel Lagowitz. For further information address him at 333 Broad street, Newark, N. J.

**Telegraphic Present to the Czar.**

We have seen a beautiful little telegraphic present intended for the Czar of Russia, a description of which will be of interest to our readers. The article is, in fact, a complete telegraph office, comprised within the compass of a morocco case eight inches in length, six inches in width and three and one-half inches in depth. Within this case are contained a complete galvanic battery, known to telegraphers as the electrobian battery, with six glass cups for the acids, in which are inserted the zinc plates and carbons by which is generated the electric fluid. Attached to each cup is a switch, by which either the whole or a part of the force of the battery can be applied to the wires connecting with the instrument. The force, or electric power, generated by this miniature battery is sufficient to work the instrument and transmit easily messages between this city and Boston. The relay magnet is only three inches in length, an inch and a half in width, comprising two coils of copper wire as fine as the finest thread, covered with fine silk, each coil covered with bone rubber and containing one mile of wire. The "sounder," by which the operator designates by the number and length of the sounds or "clicks" the letters transmitted, is only an inch and a half in length, an inch and a quarter wide, and an inch in height, comprising two upright magnets over which is situated the armature connected with the brass standards by a small brass lever, the whole set on a hollow base of hard rubber. The key which the operator uses to transmit despatches is of brass, as is also the switch attached to it, and is mounted on hard rubber. The workmanship is of the finest character, nothing being wanted to make the whole contents of this little case a complete and thorough outfit for a first class telegraph office. The instrument is on the Morse system, and is that which is in general use in Russia. This *bijou* of telegraphy is indeed a beautiful specimen of American mechanism, such as will stimulate the Russian telegraphers to emulate, and one which will add much to the widespread fame of Charles T. Chester, Esq., its maker, as a New York artisan. Col. Charles S. Bulkley, Chief Engineer of the Russian American Telegraph line, is in possession of this miniature telegraph

office, and it will be presented to his Imperial Highness, the Czar of Russia, upon the arrival of Col. Bulkley at St. Petersburg, after the completion of the great intercontinental telegraph line between the two countries.

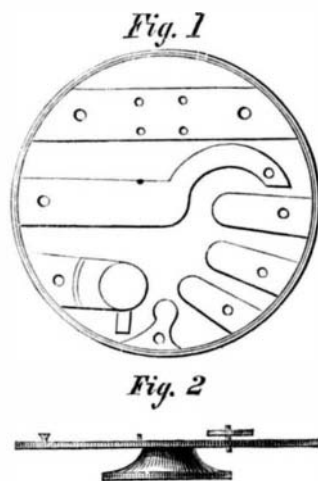
**Sweeping the Streets of New York.**

Very few persons have any conception of the magnitude of the work to be performed in cleaning the streets of a large city like New York. The *Herald*, in an article on the subject, remarks:—There are two hundred and sixty-eight miles of paved streets in this city, averaging thirty-three feet in width. This gives an area of one thousand one hundred and

thirty-nine acres to be cleaned. The city inspector has the whole area swept once every fortnight; about one-quarter is swept three times; three hundred and forty-five acres are cleaned six times; and seventy-five acres twelve times in the same space of time. This is equivalent to cleaning three thousand five hundred and fifty-three acres once in two weeks. In addition to this work the ash carts traverse every mile of the streets, on each side, every day, Sundays excepted. This is equivalent to traversing five hundred and thirty-six miles a day, and conveys some idea of the extent of this magnificent metropolis. The expense for street cleaning last year was \$398,223.

**KIMBALL'S WATCH MOVEMENT HOLDER.**

Watch makers will appreciate this little workholder, since its use will save a good deal of time and vexation in hunting after the several parts of the watch which have been removed for cleaning or re-



pairing. Instead of putting the parts under a bell glass on a sheet of paper, as is generally done, and turning them all over to find one particular screw, this plate is provided, and each piece is put into the hole or position it occupies in the watch. Fig. 1 is a view of the plate marked off like a "movement" and so that the workman can see at a glance what he is doing. This plate rests on a broad base which holds it firmly; the utility of it is too obvious to require further comment; it will no doubt become popular with watchmakers. A patent was issued through the Scientific American Patent Agency on Aug. 30, 1864, to E. M. Kimball, of Toledo, Ohio, whom address for further information.

**New Safety Apparatus.**

An ingenious apparatus for enabling persons to remain under water, or in places filled with deleterious gases, has been contrived by a French inventor. The apparatus consists simply of a piece of wood having the form and dimensions of the human mouth when open. To this piece of wood two india-rubber tubes are fixed, of any length, according to the exigencies of the case. The man engaged in the operation is further provided with a nose-pincher, or instrument for compressing the nostrils, so as to prevent the introduction of the deleterious gas or of water, as the case may be. The operator puts the piece of wood into his mouth, and puts on the nose-pincher. He stops up one of the orifices with his tongue, and inhales pure air from the other; after which he shifts his tongue on the latter orifice, and exhales his breath through the other. He continues thus regularly shifting his tongue from one orifice to the other, in the order of inspirations and expirations; but even a mistake would be of little consequence.

[This strikes us as being a complicated operation.—Eds.]

[THE

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