Aug. 8, 1933. J. F. MACOUREK 1,921,420

RETRACTABLE SUPPORTING GEAR

Filed April 11, 1931

Fig. 1

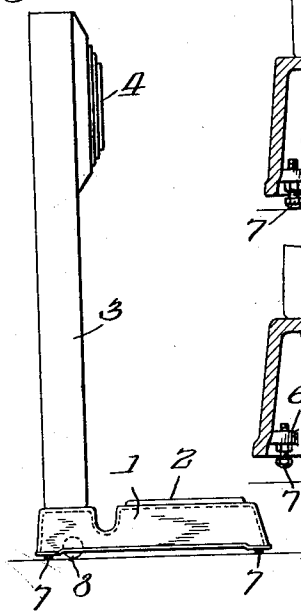


Fig. 2

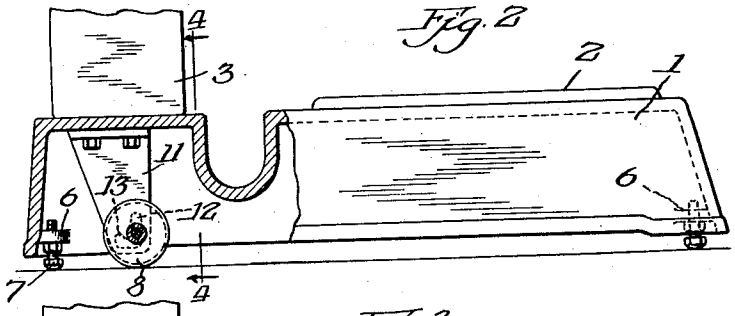


Fig. 3

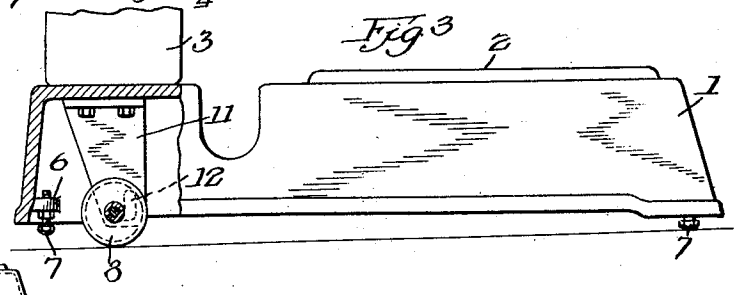


Fig. 4

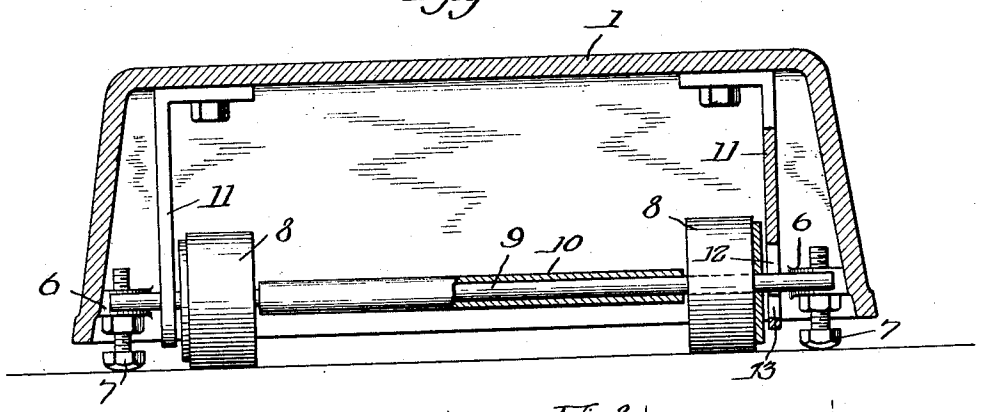


Fig. 5

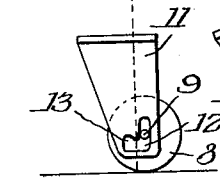


Fig. 6

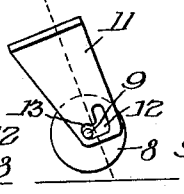


Fig. 7

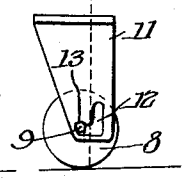


Fig. 8

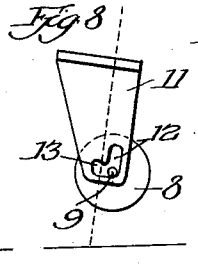
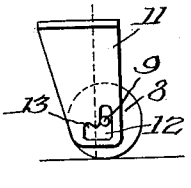


Fig. 9



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UNITED STATES PATENT OFFICE

1,921,420

RETRACTABLE SUPPORTING GEAR

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Application April 11, 1931. Serial No. 529,420

1 Claim. (Cl. 280—43)

This invention relates to retractable supporting gear and more particularly to a receding support adapted to be utilized in connection with articles that are moved about a floor or similar supporting surface from one position to another.

This type of supporting gear is particularly useful on certain cabinets, show cases, scales or the like where it is desirable that they not only be portable but be rigid when in position ready for use. In connection with scales, for example, it has been the practice, heretofore, to support scales of the platform type upon rollers in order that they may be conveniently moved from place to place. This manner of supporting the scale, however, does not provide a rigid mount for the scale when it is in use. The same applies to many other articles.

It is the purpose of this invention, therefore, to provide a support which will rigidly support the desired article when in use and yet which will permit the supported article to be moved with ease whenever desired.

In accordance with this invention the base of the article to be supported is provided with a sufficient number of rigid feet or posts for supporting the base when in use in combination with rollers which are movable into retracted position when the article supported is in use and into operative position so that the supported article may be rolled thereon when it is desired to move the same.

In the preferred form of this invention the rollers are movable into or from either retracted or operative position by gravity upon tilting the base of the supported article, thus eliminating the necessity for any operating mechanism for moving the rollers.

Other novel features and their resultant advantages will be apparent as a description of this invention proceeds in connection with drawing, in which for purposes of illustration a scale is shown equipped with a supporting gear embodying this invention and in which:

Fig. 1 is a side elevation of a conventional platform scale embodying the features of this invention;

Fig. 2 is an enlarged side elevation, partly in section, of the base portion of the scale showing the rollers in retracted position;

Fig. 3 is a similar view showing the rollers in operative position;

Fig. 4 is a transverse vertical section taken on line 4—4 of Fig. 2; and

Figs. 5 to 9, inclusive, are diagrammatic views illustrating the operation of the movable rollers from retracted position into operative position and back to retracted position.

Referring to the drawing and more particularly to Fig. 1, it will be seen that the illustrated scale comprises a base 1, with a platform 2 thereon, and a standard 3 projecting upwardly from one end thereof. The standard terminates at its upward end in the usual dial face 4.

The base, which is an inverted hollow rectangular shell, is provided at each corner with a lug 6 which is threaded to receive a cap screw 7. The screws 7 project slightly below the base and engage the supporting surface such as the floor, to rigidly support the scale in position. These cap screws constitute adjustable posts or legs for the scale.

In order that the scale may be portable a pair of rollers 8 are provided carried by a common shaft 9 and spaced thereon by a ferrule 10. The ends of the shaft are journaled in a pair of spaced bearing brackets 11 preferably secured to the interior of base 1 adjacent each side thereof. Each of the brackets 11 is provided with a substantially L-shaped slot 12 to receive the ends of the shaft. One arm of the L-shaped slot is substantially vertical whereas the other arm is substantially horizontal, the outer end of the latter arm being further provided with a notch 13 which serves to retain the shaft in this arm after it has been moved therein.

From the foregoing description it will be seen that rollers 8 and shaft 9 are movable by gravity into retracted position in the vertical arm of the L-shaped slot in the bearing bracket and into operative position in the horizontal arm. The manner of moving the rollers 8 from inoperative position to operative position and back to inoperative position will be explained with particular reference to Figs. 5 to 9, inclusive. Assuming the scale to be in position with the rollers in inoperative position as shown in Fig. 5, the base being firmly placed upon its supporting surface and that it is desired to move the scale, the base is tilted to the left upon one pair of feet 7 as illustrated in Fig. 6. Rollers 8 and shaft 9 will drop to the bottom of the vertical arm of slot 12 and fall into the horizontal arm. The base is then returned to horizontal position and shaft 9 will slide into notch 13 as shown in Fig. 7. The rollers will then support the base upon the supporting surface with one end of the base raised from the supporting surface. In this position a scale can readily be moved to any desirable location. After the scale has been placed in its

desired location the base is tilted to the right as shown in Fig. 8 which will cause shaft 9 to drop out of notch 13 and move to the bottom of the vertical arm of slot 12. The base is then returned to horizontal position and shaft 9 will slide up into the vertical arm of slot 12 into retracted position, as shown in Fig. 9.

From the foregoing description it will be apparent that there has been provided means for rigidly supporting an article, such as the scale shown for purposes of illustration, when in use and yet which will permit ready movement of the base whenever it is desired to move the article from one position to another. The mechanism by which this is accomplished is extremely simple, requires no operating mechanism, and is substantially trouble-proof.

It is obvious that any article desired may be supported as disclosed and that many changes may be made in the details of construction without departing from the spirit and scope of the invention as defined in the claim.

I claim:

In a structure having a rigid supporting base adapted to rest on a floor, means rendered operable by tilting the base one way to provide a rolling support therefor and adapted to be rendered inoperative by tilting the base the opposite way, said means comprising, in combination with spaced vertically disposed rigid parts of said base having parallel L-shaped slots arranged to provide vertically extending branches and lower horizontally extending branches, roller means having axle means mounted in said slots, said roller means being of such diameter as to be effectual to support the base only when the axle means engage in the horizontally extending branches of said slots, wherefore by tilting the base one way the roller means can be caused to drop by gravity into operative position and by tilting the base the opposite way the roller means can be caused to move by gravity to inoperative position.

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