C. U. CARPENTER.

ROLLER SUSPENSION FOR DRAWERS.

APPLICATION FILED NOV. 20, 1909.

1,042,646.

Patented Oct. 29, 1912.

2 SHEETS—SHEET 1.

Fig. 2

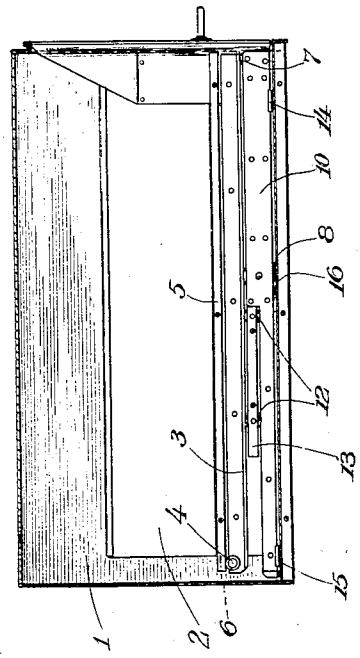
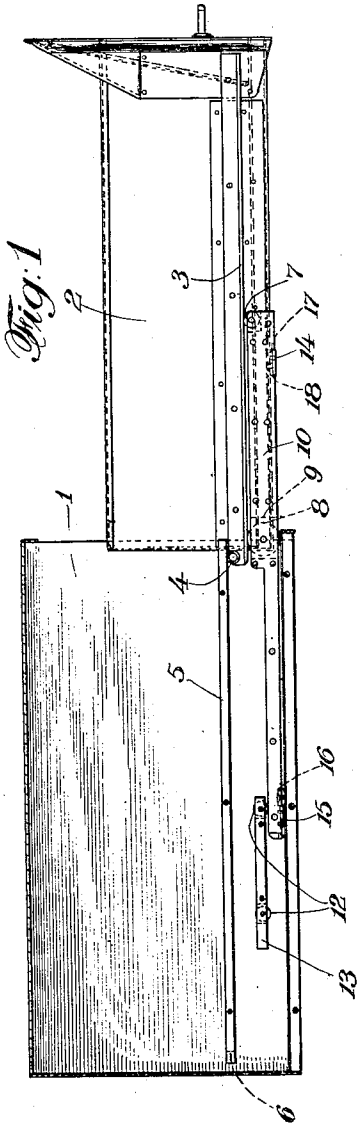


Fig. 1



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2 SHEETS—SHEET 2.

Fig. 6

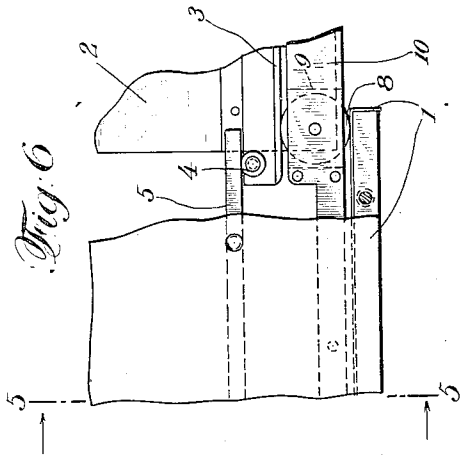


Fig. 7

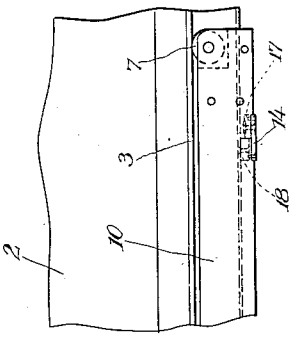


Fig. 5

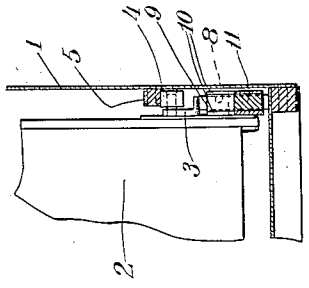


Fig. 3

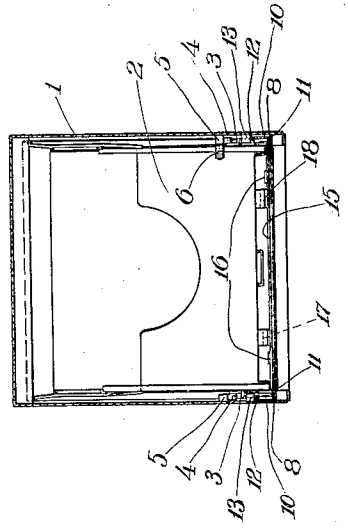
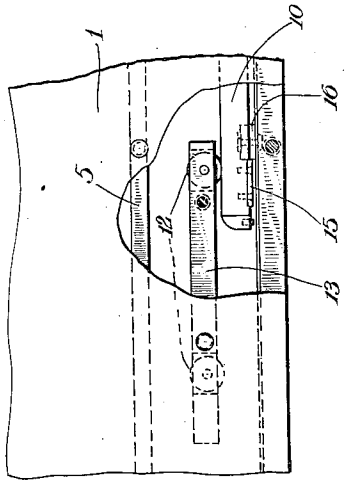


Fig. 4



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UNITED STATES PATENT OFFICE.

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ROLLER SUSPENSION FOR DRAWERS.

1,042,646. Specification of Letters Patent. Patented Oct. 29, 1912.

Application filed November 20, 1909. Serial No. 529,047.

To all whom it may concern:

Be it known that I, CHARLES U. CARPENTER, of New York, in the county of New York and in the State of New York, have invented a certain new and useful Improvement in Roller Suspensions for Drawers, and do hereby declare that the following is a full, clear, and exact description thereof.

The object of my invention is to provide a roller suspension for drawers, which works with exceptional ease, which has exceptional strength, and which is so simple that it cannot readily get out of order.

I have shown one modification of my invention in the accompanying drawings, in which—

Figure 1 is a horizontal cross-section of a file cabinet equipped with my invention; Fig. 2 is a similar view of the same showing the drawer in its closed position; Fig. 3 is a cross-section of the same taken at right angles to the view shown in Figs. 1 and 2; Figs. 4 to 6 are views of details of the supporting mechanism of the drawer; and Fig. 7 is a detail view of the coöperating stops carried by the neutral member and the drawer.

In the drawings, 1 is a casing of a file cabinet, containing a drawer 2. Each side of the drawer is provided with an angle bar 3, the rear end of which is provided with a roller 4. The roller 4 is designed to run upon the under surface of a track 5, projecting from each side of the interior of the casing 1. One of the tracks 5 has at its rear end a buffer 6 to limit the rearward movement of the drawer. The horizontal portion of the angle bar 3 is designed to run upon a front roller 7 and a rear roller 8, carried at each side of the casing by a sliding frame 9, to be called the neutral member. The rollers 7 and 8 are supported between a pair of parallel vertical plates 10, located at each side of the neutral member. The front rollers 7 are smaller in diameter than the width of the vertical plates, and are so located as to project above the upper surfaces thereof. The rear rollers are larger in diameter than the width of the vertical plates 10, and are located in such a manner as to project both above and below said plates. The rollers 7, therefore, merely support a portion of the sliding drawer 2, while the rear rollers 8 not only support a portion of said drawer, but also support the front end of the neutral member from the bottom of the casing 1. It is to be understood, of course, that instead of having the rollers 8 run upon the bottom of the casing 1, any suitable extension might be provided at this point in the casing to receive these rollers. The rear portions of the vertical plates 10 are only half as wide as the front portions thereof, and a horizontal bar or plate 11 is inserted between the upper ends of the two pairs of vertical plates at the rear portions thereof to produce a pair of tracks to coöperate with the lower surfaces of a pair of rollers 12 supported at each side of the casing 1 by means of a bracket 13. The bracket 13, together with the rear portions of the vertical plates 10, are not greater in width than the entire front portions of said vertical plates 10. Ample room is thus given to permit the rollers 4, carried by the angle bars 3, to pass above the brackets 13 carrying the pairs of rollers 12, without interfering with the same. The vertical plates 10 of the neutral member are connected together by a front horizontal strip 14 and a similar rear horizontal strip 15. The rear horizontal strip 15 coöperates with a pair of buffers 16 to limit the forward movement of the neutral member, said buffers 16 being carried by the bottom of the casing 1, while the front horizontal strip 14 is provided with a similar pair of buffers 17 to coöperate with a pair of complementary buffers 18, projecting downwardly from the bottom of the sliding drawer 2. The buffers 17 and 18 limit the forward sliding movement of the drawer upon the neutral member.

In the operation of my device, assuming that the drawer is in its closed position, a forward movement of the same will cause the drawer to roll upon the rollers 7 and 8. As the drawer 2 thus moves forwardly the neutral member is caused to move forwardly at the same time, because of the rotation of the rear rollers 8. As a matter of fact, by the operation of these parts, the neutral member is moved forwardly just half as fast as is the drawer. As these parts move forwardly, the rear end of the drawer is supported at all times, so as to obviate tilting by the engagement of the rollers 4 with the under surfaces of the tracks 5. In a similar manner the neutral member is prevented from tilting by the engagement of the tracks provided upon the rear ends of the vertical

plates 10 with the rollers 12. The forward movement of the neutral member is limited by means of the buffers 16, while the forward movement of the drawer 2 upon the neutral member is limited by the buffers 17 and 18. Should it be desired to remove the drawer, it is merely necessary to withdraw the same from the casing, and to lift it upwardly until the buffers 18 are disengaged from the buffers 17, and then pull the drawer forwardly until it is entirely removed from the casing 1. In closing the drawer, the reverse series of operations takes place, and the rear movement of the drawer is limited by the presence of the buffer 6 carried by one of the tracks 5.

While I have described my invention above in detail, I wish it to be understood that many changes may be made therein without departing from the spirit of my invention.

I claim:—

In a device of the character described, a casing, a drawer, an extensible member adapted to support the drawer from the casing, and one or more rollers adapted to cooperate with the rear of the extensible member to prevent it from tilting, the rear end of the extensible member being reduced in width by approximately the width of the said rollers.

In testimony that I claim the foregoing I have hereunto set my hand.

CHARLES UNDERWOOD CARPENTER.

Witnesses:
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