H. A. PALMER.

DETACHABLE CASTER FOR METAL BEDSTEADS.

APPLICATION FILED JAN. 28, 1909.

918,083. Patented Apr. 13, 1909.

Fig. 1.

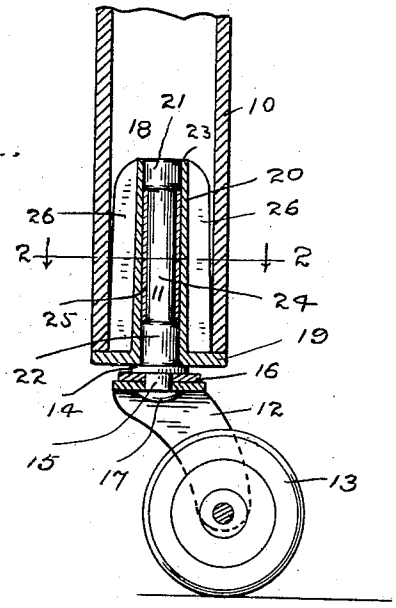


Fig. 2.

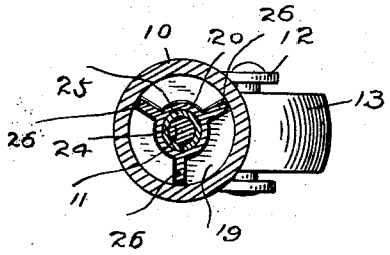
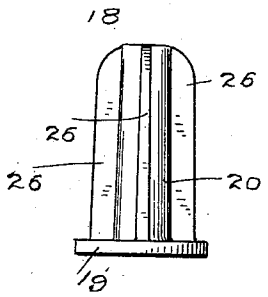


Fig. 3.



Witnesses:

H. A. Lamb.

S. W. Atherton.

Inventor

Harry A. Palmer

By Attorney

A. M. Wooster

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HARRY A. PALMER, OF MERIDEN, CONNECTICUT, ASSIGNOR TO FOSTER, MERRIAM AND COMPANY, OF MERIDEN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

DETACHABLE CASTER FOR METAL BEDSTEADS.

No. 918,083. Specification of Letters Patent. Patented April 13, 1909.

Application filed January 28, 1909. Serial No. 474,698.

To all whom it may concern:

Be it known that I, HARRY A. PALMER, a citizen of the United States, residing at Meriden, county of New Haven, State of Connecticut, have invented a new and useful Detachable Caster for Metal Bedsteads, of which the following is a specification.

This invention has for its object to provide a detachable caster for metal bedsteads which shall be simple and inexpensive to produce, practically indestructible and which will turn freely in use. It has been a serious objection to casters of this type heretofore produced and especially to sheet metal casters that they quickly twist out of shape so that the pintles will not turn in the sockets and the casters are thus rendered worse than useless as they tear carpets and rugs and ruin hardwood floors.

My present invention enables me to produce a relatively high grade caster at a very low price, that will remain firmly in place in the leg, will stand up for practically an unlimited length of time under the roughest kind of hard usage and will still turn freely and not injure carpets, rugs or hardwood floors.

With these and other objects in view I have devised the simple and novel caster which I will now describe, referring to the accompanying drawing forming a part of this specification and using reference characters to indicate the several parts:

Figure 1 is a longitudinal sectional view of the lower end of the leg of a metal bedstead and my novel caster, showing the caster in place as in use; Fig. 2 a transverse section on the line 2—2 in Fig. 1, looking down, and Fig. 3 is an elevation of the socket detached.

10 denotes the leg of a metal bedstead which is simply a metal tube, 11 the pintle of my novel caster, 12 the horn and 13 the wheel. The wheel may be of any suitable material as wood, glass or metal, or metal covered with felt or rubber. The horn is of ordinary construction and may be made either of sheet metal or cast. The pintle is provided near its lower end with a bearing head 14. Below the bearing head is a stud 15 which passes through a strengthening washer 16 and through the horn between the arms thereof and is headed down against the horn as at 17, the horn and washer being tightly locked between the heading and the bearing head.

18 denotes the socket as a whole which is cast in a single piece and comprises a disk 19 which corresponds in diameter with the external diameter of the leg so as to form a finish for the lower end of the leg, a body 20 rising from the center of the disk and having a longitudinal hole 23 through it which is preferably formed by means of a chill core, and a plurality of radially extending wings 26, three in the present instance, which engage the inner wall of the leg with a drive fit and in practice cut slight grooves in the leg so as to make the socket rigidly self-retaining therein. In practice, the edges of the wings are made to taper toward the body slightly from bottom to top to adapt them to slight variations in the internal diameter of the leg. The wings are likewise made of slightly diminishing thickness from bottom to top and the body is made to taper slightly inward from bottom to top so as to permit the sockets to be readily drawn from the sand in casting. The entire weight is supported in use by the bearing head upon which the lower end of the socket rests. At the upper and lower ends of the pintle are bearings indicated respectively by 21 and 22 which engage the longitudinal hole in the body closely so as to prevent unnecessary looseness of the pintle but turn freely therein. Between the bearings the diameter of the pintle is reduced as at 24.

25 denotes an outwardly acting spring sleeve which is carried by the pintle between the bearings and engages the wall of hole 23 closely to detachably retain the pintle in place.

In putting the caster together, the pintle is attached to the horn, as already described, and the spring sleeve is put in place on the pintle. The caster is then ready for shipment or use.

The operation will be obvious from the drawing. The socket is driven into the body until the disk engages the lower end of the body, as shown, the wings cutting slight grooves in the leg thereby making the socket self-retaining in place. The pintle is simply pressed into place in the longitudinal hole in the socket, the spring sleeve fitting closely in the socket and retaining the pintle, horn and wheel securely in place but permitting their ready removal by sufficient outward pull to overcome the friction of the spring sleeve on the wall of the hole in the body of the socket.

Having thus described my invention I claim:

1. A caster comprising a socket adapted to be driven into a metal leg and consisting of a body having a longitudinal hole, wings to engage the leg and a disk which corresponds with the external diameter of the leg, a pintle having upper and lower bearings engaging the hole in the socket but turning freely therein and intermediate said bearings a reduced portion and an outwardly-acting sleeve on said reduced portion adapted to engage the hole in the body to detachably retain the pintle in place.

2. A caster socket consisting of a tapering body having a longitudinal hole, a bottom disk adapted to engage a metal leg and radial wings of diminishing thickness from bottom to top and the edges of which taper toward the body from bottom to top, substantially as described, for the purpose specified.

3. A caster comprising a socket consisting of a body having a longitudinal hole, a disk at the bottom of the body adapted to engage the end of a metal leg and radial wings adapted to engage the inner wall of a leg, a pintle having upper and lower bearings engaging the hole in the socket and intermediate said bearings an outwardly acting spring sleeve adapted to engage the hole in the body and cut grooves therein, substantially as described, for the purpose specified.

In testimony whereof I affix my signature, in presence of two witnesses.

HARRY A. PALMER.

Witnesses:

GEO. A. CONNERS,

CHAS. S. WILCOX.