(No Model.)

S. FRANK.

BRACES OR SUSPENDERS.

No. 399,027. Patented Mar. 5, 1889.

Fig. 1.

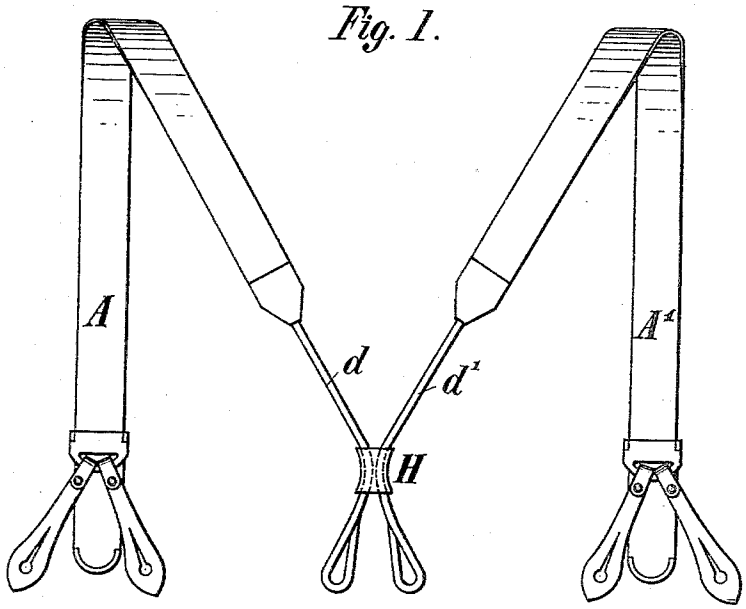


Fig. 2.

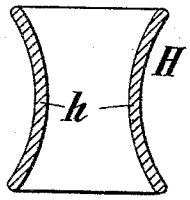


Fig. 3.

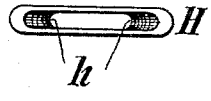


Fig. 4.

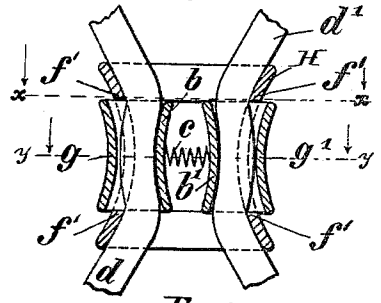


Fig. 5.

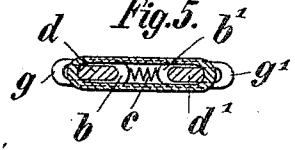
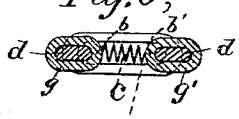


Fig. 6.



Witnesses.
Clarence A. Brandenburg.
Walter Scott.

Inventor.
Sigmund Frank
By Paine Lade,
Attys.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

SIEGMUND FRANK, OF HAMBURG, GERMANY.

BRACES OR SUSPENDERS.

SPECIFICATION forming part of Letters Patent No. 399,027, dated March 5, 1889.

Application filed November 10, 1888. Serial No. 290,409. (No model.)

To all whom it may concern:

Be it known that I, SIEGMUND FRANK, a subject of the Emperor of Germany, and a resident of Hamburg, in the German Empire, have invented certain new and useful Improvements in Braces or Suspenders, of which the following is a specification.

This invention relates to improvements in braces or suspenders for trousers and pantaloons, the object in view being to accommodate the position of each shoulder web or strap in accordance with the movements and natural form and positions of the shoulders.

In the accompanying drawings, Figure 1 is a perspective view of a pair of braces or suspenders with a collar or slide. Fig. 2 is a vertical section of said collar or slide. Fig. 3 is a top view of the same; and Figs. 4 and 5 are respectively vertical and horizontal sectional views showing my invention complete, the latter figure being taken on the line $x\ x$ of the former. Fig. 6 is a second horizontal sectional view taken on the line $y\ y$, Fig. 4.

To the back ends of the main straps A A′ are connected the cords $d\ d'$, which are combined by means of a collar or slide, H, being preferably made of metal or other hard material. The sides h of said collar or slide are inwardly bent, so that the collar H may easily slide along the cords $d\ d'$, and the latter may be allowed to occupy any possible position required from the distance of the hind buttons on the trousers and from the width and positions of the wearer's shoulders. By this arrangement and construction the greatest freedom of motion is allowed the wearer, as the collar or slide H as well as the cords $d\ d'$ adapt themselves to the changed positions of the wearer's shoulders. The slide is apt to travel automatically on the cords $d\ d'$, by which it is moved in such a position that no pressure is transmitted on the spine of the wearer.

While the above form serves in most cases, yet, so as to arrest the slide in a certain position on the cords $d\ d'$, I generally employ a pair of tubes or dies, $b\ g$ and $b'\ g'$, serving under the combined action of a spring, c, and the edges $f'\ f'$ as sort of brakes, said cords $d\ d'$ being passed between said tubes or dies and slide or collar H. In order to adjust the collar on the cords $d\ d'$, the laterally-projecting edges $g\ g'$ of the dies, sliding within the collar H, are moved toward each other, whereupon the dies $b\ g$ and $b'\ g'$ will release the cords $d\ d'$ so much that the collar H may be moved on the cords and arrested thereon at will. The dies at their ends bind the cords $d\ d'$ against the end walls of the slide H and there firmly hold the same.

Having now particularly described and ascertained my said invention and in what manner the same is to be performed, I declare that what I claim, and desire to secure by Letters Patent, is—

1. As an improvement in suspenders having end cords, the collar or slide and the laterally-movable dies for clamping said end cords, substantially as set forth.

2. In combination with the loop-ended cords $d\ d'$ of the shoulder-straps A A′, a collar or slide, H, provided with a pair of laterally-movable dies, $b\ g$ and $b'\ g'$, and spring c, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 22d day of October, 1888.

SIEGMUND FRANK.

Witnesses:
ALEXANDER SPECHT,
DIEDRICH PETERSEN.