C. H. SCHMIDT.

ADJUSTABLE SPRUE.

APPLICATION FILED MAR. 15, 1920.

1,361,188. Patented Dec. 7, 1920.

Fig. 1.

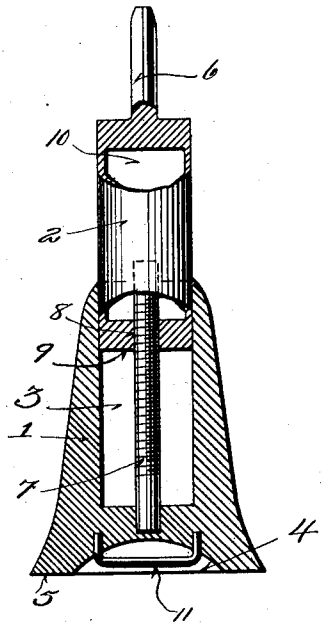
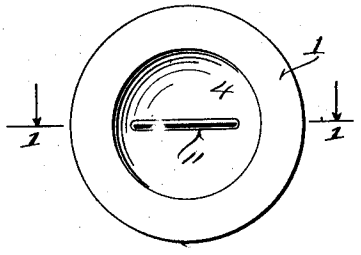


Fig. 2.



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ADJUSTABLE SPRUE.

1,361,188. Specification of Letters Patent. Patented Dec. 7, 1920.

Application filed March 15, 1920. Serial No. 365,826.

To all whom it may concern:

Be it known that I, CARL H. SCHMIDT, a citizen of the United States, and resident of Port Washington, in the county of Ozaukee and State of Wisconsin, have invented certain new and useful Improvements in Adjustable Sprues; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to new and useful improvements in molders' tools, and has particular reference to sprues.

The primary object of this invention is to provide a sprue which can be adjusted as to length so as to permit its use with patterns and flasks of various sizes.

An additional important object of the invention is to provide a sprue with means whereby it may be readily lifted from the sand of the flask when the mold is complete so as to form the ingate therefor.

Still another object of the invention is to provide a two-part expansible sprue, parts of which are telescopically engageable and are so held with respect to each other that disalinement is impossible.

With these general objects in view the invention resides in the novel features of construction, combination and arrangement of parts which will be hereinafter more particularly described and claimed and shown in the accompanying drawing, wherein:

Figure 1 represents a substantially longitudinal sectional view on the plane of the line 1—1 of Fig. 2 through an adjustable sprue constructed in accordance with the invention, the same being seated upon one end as it will be positioned when not in use.

Fig. 2 is a plan view of the seat end of the device.

In the embodiment of the invention as depicted in the accompanying drawing, the same includes a main portion 1 and an extensible portion 2, the former being tapered or relatively conical shaped and provided with a socket 3, the wall of which is cylindrical. This socket opens through the apex or small end of the main portion, the other end of which is provided with a cavity 4 surrounded by a flat seating surface 5. Thus when the article is not in use it may rest upon this flat surface 5.

The extensible portion 2 of the sprue is cylindrical and substantially the same diameter as that of the socket 3. Also in length it is substantially as long as the socket is deep. The outer end of the extensible portion has an axially extending pin 6 for engagement in a socket of a pattern (not shown) as is customary in articles of this nature.

The main portion 1 of the sprue is designed to telescopically receive the extensible portion 2 within its socket 3 and has a means for holding said extensible portion in various adjusted and extended positions, the socket being provided with an axially extended threaded stem 7 which extends from the bottom thereof and terminates at a point slightly beyond the small end of the main portion 1. The threads on this stem coöperatively engage the threads on the wall of a bore 8 formed in the inner end 9 of the extensible portion 2. This last mentioned portion is hollow as shown at 10 and therefore receives the free end of the stem 7 as it is threaded through the bore 8. In view of the coöperative engagement between the walls of the socket 3 and the extensible member 2 together with that between the stem 7 and the wall of the bore 8, said extensible portion is readily moved inwardly or outwardly of the main portion 1 and held in axial alinement therewith regardless of its position with respect thereto. A very readily adjustable, yet exceedingly strong sprue, is thus provided.

The sprue is also equipped with means for readily removing the same from the mold when the same is ready to be poured. In the present instance this consists of a lifting loop 11 which is substantially U-shaped and has its free end portions embedded in the main part of the sprue, the portion to be engaged by a suitable lifting tool being within the cavity 4 as shown in Fig. 1. In other words the complete loop 11 is located inwardly of the plane of the flat surface 5 so that it will not interfere with the seating of the sprue.

I claim:

As a new article of manufacture, a sprue having a cavity in one end, and a lifting loop disposed in said cavity, said loop being positioned inwardly of the plane of the end of the sprue.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin.

CARL H. SCHMIDT