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A crow bar with overload protection function

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This utility model discloses a crow bar with overload protection function, including bearing plate. Bearing hole is set up in the middle position of the bearing plate mentioned. Through-hole is set up on the front end face of the bearing plate mentioned. Protection axis pin is arranged in the through-hole mentioned. Stress block is set up at the bottom of the bearing hole mentioned. Locating block is set up on the top of the stress block mentioned. A locating hole fitting with the protection axis pin mentioned is set up on the top of the locating block mentioned. Mounting sleeve is set up on the top of the bearing plate close to its left side. The mounting sleeve mentioned is upward sloping. Handlebar is set up in the mounting sleeve mentioned. Screw is arranged between the handlebar and the mounting sleeve mentioned. Nonslip base plate is set up on the top of the bearing plate mentioned close to its right end. Groove is set up in the middle position of the handlebar mentioned and at the end of the handlebar mentioned away from the bearing plate mentioned. Nonslip sleeve is set up in the groove. The nonslip sleeve and the handlebar mentioned are permanently connected. This device has simple structure and low costs and is suitable for promotion for use.。

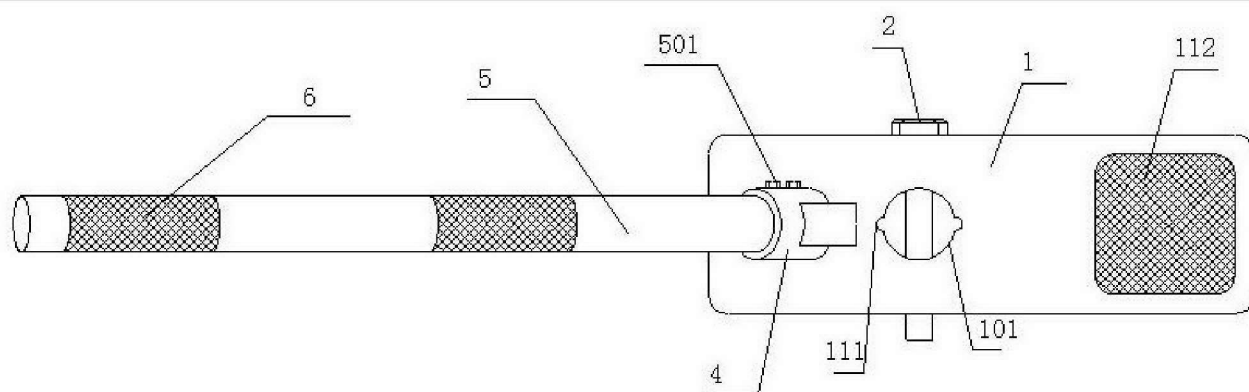


Fig.1

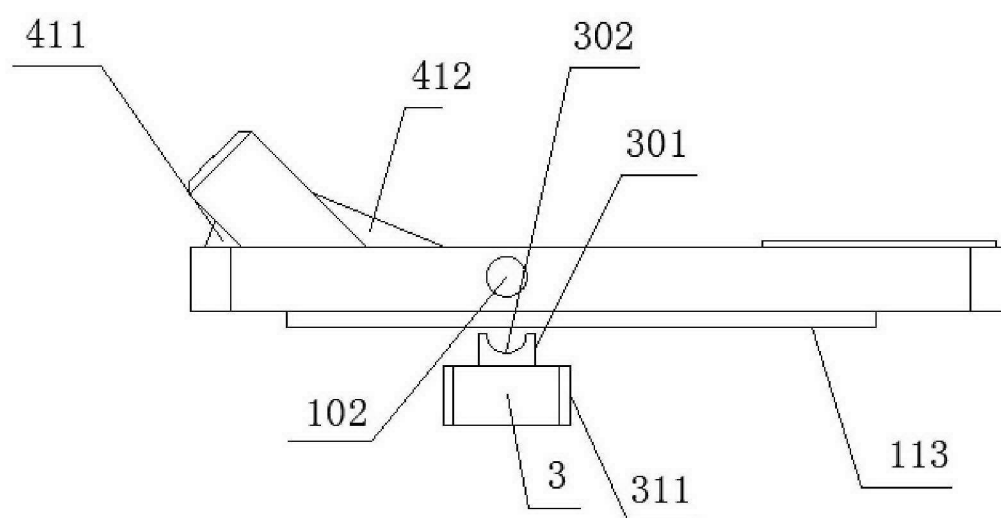


Fig.2

A crow bar with overload protection function

Technical field

This utility model involves a crow bar with overload protection function.

Background technology

Crow bar is a common hardware tool. Goods can be pried via crow bar. However, crow bars in existing technologies have a simple structure. It is necessary to use a pivot in the use process. Meanwhile, crow bars in existing technologies do not have the function of overload protection in the use process. When the force is excessive, crow bar easily buckles, thus causing the accumulation of internal stress in the crow bar and the reduction of its strength and influencing its service life.

Invention content

The technical problem to be solved by this utility model is to provide a crow bar with overload protection function. When this device is used, stress block acts as the pivot. Therefore, it is unnecessary to draw support from other pivots in the use process. This device is easy to operate. Meanwhile, its protection axis pin can realize protective effect. When the force applied on stress block is excessive, the protection axis pin breaks off and the stress block loses its effect of pivot, thus protecting this device from damage. It is only necessary to replace the protection axis pin then. The nonslip sleeve can improve the degree of comfort and reduce bleeding blisters of workers due to long-time work.

To solve problems above, this utility model adopts the following technical

scheme:

A crow bar with overload protection function includes bearing plate. Bearing hole is set up in the middle position of the bearing plate mentioned. Through-hole is set up on the front end face of the bearing plate mentioned. The through-hole runs through the bearing hole mentioned. Guide slot is set up on the wall of the bearing hole mentioned. Protection axis pin is arranged in the through-hole mentioned. Stress block is set up at the bottom of the bearing hole mentioned. Locating block is set up on the top of the stress block mentioned. A locating hole fitting with the protection axis pin mentioned is set up on the top of the locating block mentioned. Guide bar fitting with the guide slot mentioned is set up on the outer ring of the stress block mentioned. Mounting sleeve is set up on the top of the bearing plate close to its left side. The mounting sleeve mentioned is upward sloping. Handlebar is set up in the mounting sleeve mentioned. Screw is arranged between the handlebar and the mounting sleeve mentioned. Nonslip base plate is set up on the top of the bearing plate mentioned close to its right end. Groove is set up in the middle position of the handlebar mentioned and at the end of the handlebar mentioned away from the bearing plate mentioned. Nonslip sleeve is set up in the groove. The nonslip sleeve and the handlebar mentioned are permanently connected.

Preferably, over two stiffeners are set up symmetrically at the bottom of the bearing plate mentioned. Stiffeners and the bearing plate mentioned are welded together.

Preferably, when the stress block mentioned is arranged in the bearing hole mentioned, the lower end face of the stress block mentioned extends to the exterior of the bearing hole mentioned.

Preferably, rib plates No.1 and No.2 are arranged between the mounting sleeve and the bearing plate mentioned.

Preferably, four external corners of the bearing plate mentioned have circular arc transition.

Beneficial effect of this utility model: when this device is used, stress block acts as the pivot. Therefore, it is unnecessary to draw support from other pivots in the use process. This device is easy to operate. Meanwhile, its protection axis pin can realize protective effect. When the force applied on stress block is excessive, the protection axis pin breaks off and the stress block loses its effect of pivot, thus protecting this device from damage. It is only necessary to replace the protection axis pin then. The nonslip sleeve can improve the degree of comfort and reduce bleeding blisters of workers due to long-time work. This device has simple structure and low costs and is suitable for promotion for use.

Descriptions of attached figure

To illustrate implementation example of this utility model or technical proposal in existing technologies more clearly, attached figures to be used in implementation example or descriptions of existing technologies are briefly introduced below. Obviously, attached figures described below are only some implementation examples of this utility model. Common technical personnel in

this field can obtain other attached figures according to these attached figures without creative work.

Fig.1 is the top view of this utility model;

Fig.2 is the front view of bearing plate.

Detailed implementation way

Preferable implementation example of this utility model is illustrated below in combination with attached figures so that advantages and features of this utility model can be understood by technical personnel in this field more easily and the protection scope of this utility model can be defined more clearly.

A crow bar with overload protection function shown in fig.1 and fig.2 includes bearing plate 1. Bearing hole 101 is set up in the middle position of the bearing plate 1 mentioned. Through-hole 102 is set up on the front end face of the bearing plate 1 mentioned. The through-hole 102 runs through the bearing hole 101 mentioned. Guide slot 111 is set up on the wall of the bearing hole 101 mentioned. Protection axis pin 2 is arranged in the through-hole 102 mentioned. Stress block 3 is set up at the bottom of the bearing hole 101 mentioned. Locating block 301 is set up on the top of the stress block 3 mentioned. A locating hole 302 fitting with the protection axis pin 2 mentioned is set up on the top of the locating block 301 mentioned. Guide bar 311 fitting with the guide slot 111 mentioned is set up on the outer ring of the stress block 3 mentioned. Mounting sleeve 4 is set up on the top of the bearing plate 1 close to its left side. The mounting sleeve 4 mentioned is upward sloping.

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Handlebar 5 is set up in the mounting sleeve 4 mentioned. Screw 501 is arranged between the handlebar 5 and the mounting sleeve 4 mentioned. Nonslip base plate 112 is set up on the top of the bearing plate 1 mentioned close to its right end. Groove is set up in the middle position of the handlebar 5 mentioned and at the end of the handlebar 5 mentioned away from the bearing plate 1 mentioned. Nonslip sleeve 6 is set up in the groove. The nonslip sleeve 6 and the handlebar 5 mentioned are permanently connected.

A better implementation example in this utility model: over two stiffeners 113 are set up symmetrically at the bottom of the bearing plate 1 mentioned. Stiffeners 113 and the bearing plate 1 mentioned are welded together.

A better implementation example in this utility model: when the stress block 3 mentioned is arranged in the bearing hole 101 mentioned, the lower end face of the stress block 3 mentioned extends to the exterior of the bearing hole 101 mentioned.

A better implementation example in this utility model: rib plates No.1 411 and No.2 412 are arranged between the mounting sleeve 4 and the bearing plate 1 mentioned.

A better implementation example in this utility model: four external corners of the bearing plate 1 mentioned have circular arc transition.

Beneficial effect of this utility model: when this device is used, stress block acts as the pivot. Therefore, it is unnecessary to draw support from other pivots in the use process. This device is easy to operate. Meanwhile, its protection axis pin can realize protective effect. When the force applied on

stress block is excessive, the protection axis pin breaks off and the stress block loses its effect of pivot, thus protecting this device from damage. It is only necessary to replace the protection axis pin then. The nonslip sleeve can improve the degree of comfort and reduce bleeding blisters of workers due to long-time work. This device has simple structure and low costs and is suitable for promotion for use.

The above shows and describes basic principle, main features and advantages of this utility model. Technical personnel in this industry should know that this utility model is not limited by the implementation example above. The implementation example and descriptions above only describe principles of this utility model. This utility model will have various changes and improvements without violating the spirit and scope of this utility model. Such changes and improvements will fall into the scope of this utility model requiring protection. The scope of protection required by this utility model is defined by the claim attached and its equivalent.

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1. A crow bar with overload protection function characterized by the following:
it includes bearing plate. Bearing hole is set up in the middle position of the bearing plate mentioned. Through-hole is set up on the front end face of the bearing plate mentioned. The through-hole runs through the bearing hole mentioned. Guide slot is set up on the wall of the bearing hole mentioned. Protection axis pin is arranged in the through-hole mentioned. Stress block is set up at the bottom of the bearing hole mentioned. Locating block is set up on the top of the stress block mentioned. A locating hole fitting with the protection axis pin mentioned is set up on the top of the locating block mentioned. Guide bar fitting with the guide slot mentioned is set up on the outer ring of the stress block mentioned. Mounting sleeve is set up on the top of the bearing plate close to its left side. The mounting sleeve mentioned is upward sloping. Handlebar is set up in the mounting sleeve mentioned. Screw is arranged between the handlebar and the mounting sleeve mentioned. Nonslip base plate is set up on the top of the bearing plate mentioned close to its right end. Groove is set up in the middle position of the handlebar mentioned and at the end of the handlebar mentioned away from the bearing plate mentioned. Nonslip sleeve is set up in the groove. The nonslip sleeve and the handlebar mentioned are permanently connected.
2. The crow bar with overload protection function mentioned according to claim 1 is characterized by the following: over two stiffeners are set up symmetrically at the bottom of the bearing plate mentioned. Stiffeners and

the bearing plate mentioned are welded together.

3. The crow bar with overload protection function mentioned according to claim 1 is characterized by the following: when the stress block mentioned is arranged in the bearing hole mentioned, the lower end face of the stress block mentioned extends to the exterior of the bearing hole mentioned.
4. The crow bar with overload protection function mentioned according to claim 1 is characterized by the following: rib plates No.1 and No.2 are arranged between the mounting sleeve and the bearing plate mentioned.
5. The crow bar with overload protection function mentioned according to claim 1 is characterized by the following: four external corners of the bearing plate mentioned have circular arc transition.

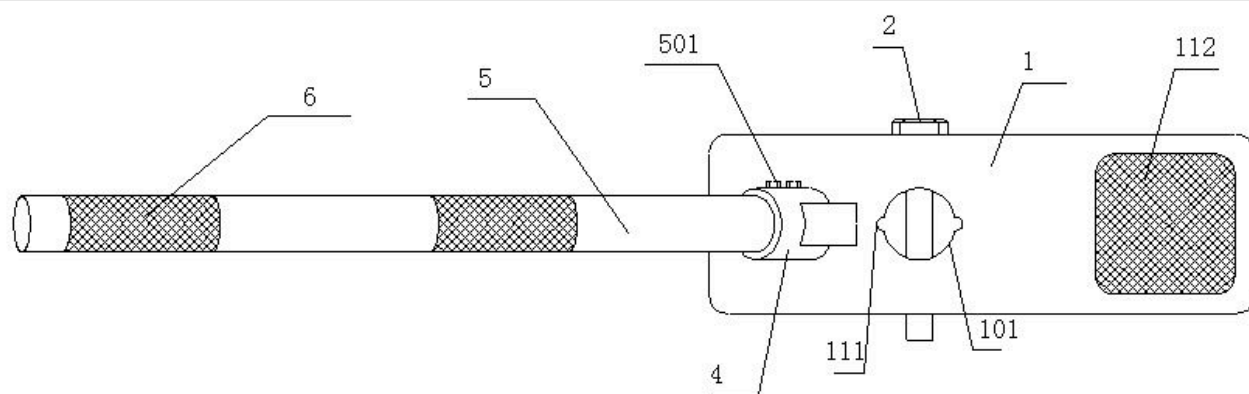


Fig.1

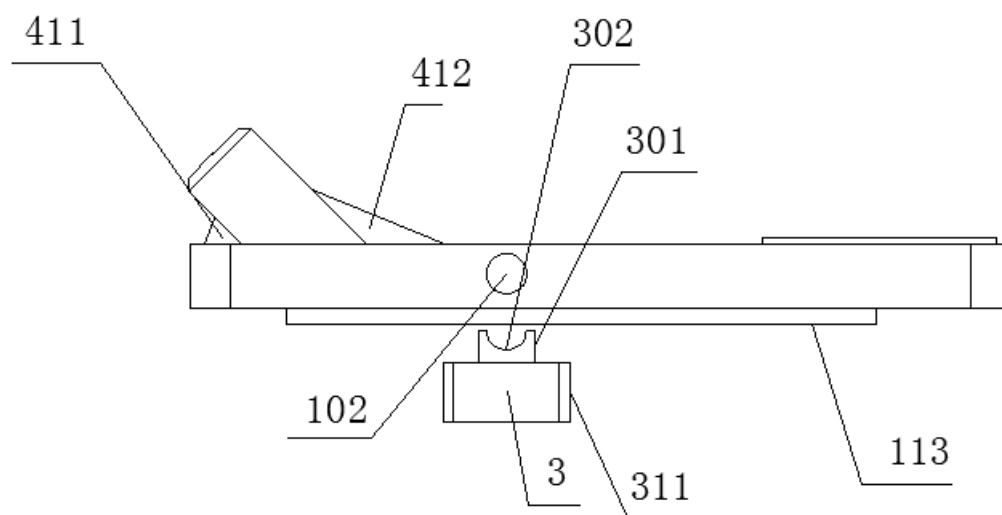


Fig.2