



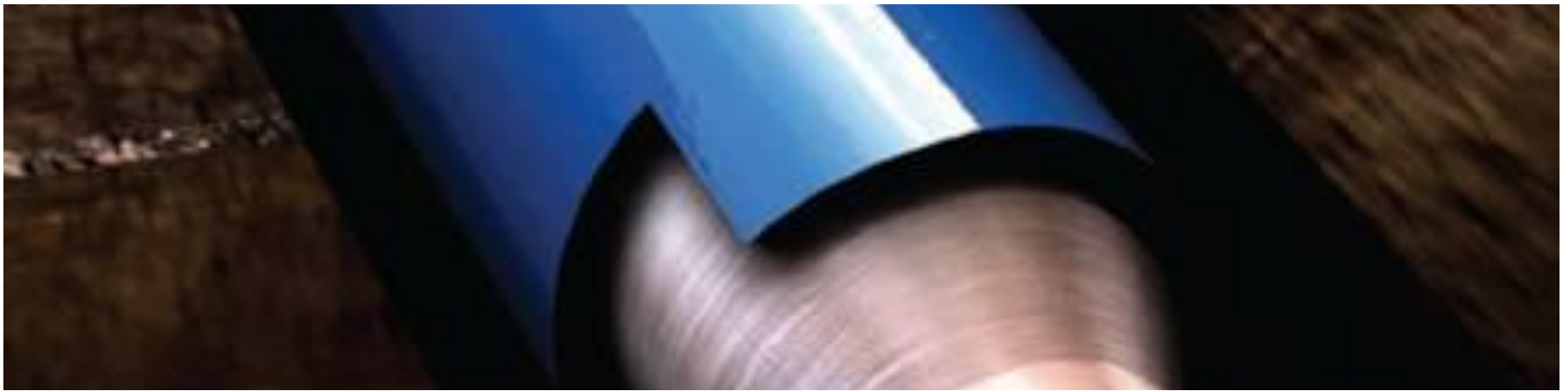
How Does Fishing Work?

Done by: Tuganbayev A.,
Kuatbekov B.

Glossary

Fish или *Junk*

- буровой инструмент, упавший в скважину
- предмет, оставленный в скважине, слом ;
- Часть трубы оставшаяся в скважине ниже срезающих плашек превентора;
- оставленная в скважине часть инструмента.

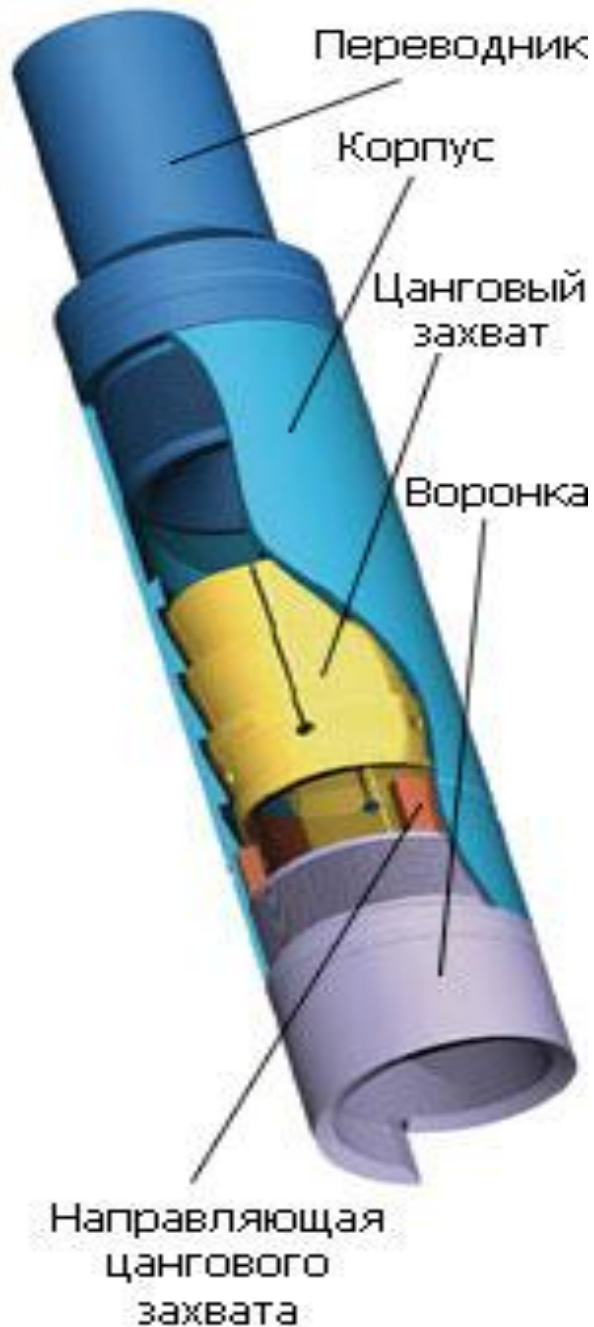


- There are a number of problems that can occur while drilling a well. Whether a drill string breaks and falls to the bottom of the wellbore or a bit breaks, accidents happen. Even pipe or a tool can fall from the rig floor into the bottom of the well.
- This stray equipment that has fallen into the well is referred to as *fish* or *junk*, and regular drill bits cannot drill through it. Should a fish fall into a well, *fishing* is required to remove it.

- In order to perform fishing on a well, drilling must be shelved and special fishing tools employed. Each tool is specially crafted to perform a specific function, or retrieve a certain type of fish. Most fishing tools are screwed into the end of a fishing string, similar to drillpipe, and lowered into the well.

Glossary

- ***Spear*** - труболовка; ловильный крючок (в канатном бурении); однорогий ёрш;
- ***Overshoot*** – деталь труболовки, которая «захватывает» «обхватывает» трубу в скважине.



There are two options to recover lost pipe. The first is a **spear**, which fits within the pipe and then grips the pipe from the inside. On the other hand, an **overshoot** may be employed, and this tool surrounds the pipe and grips it from the outside to carry it up the wellbore.

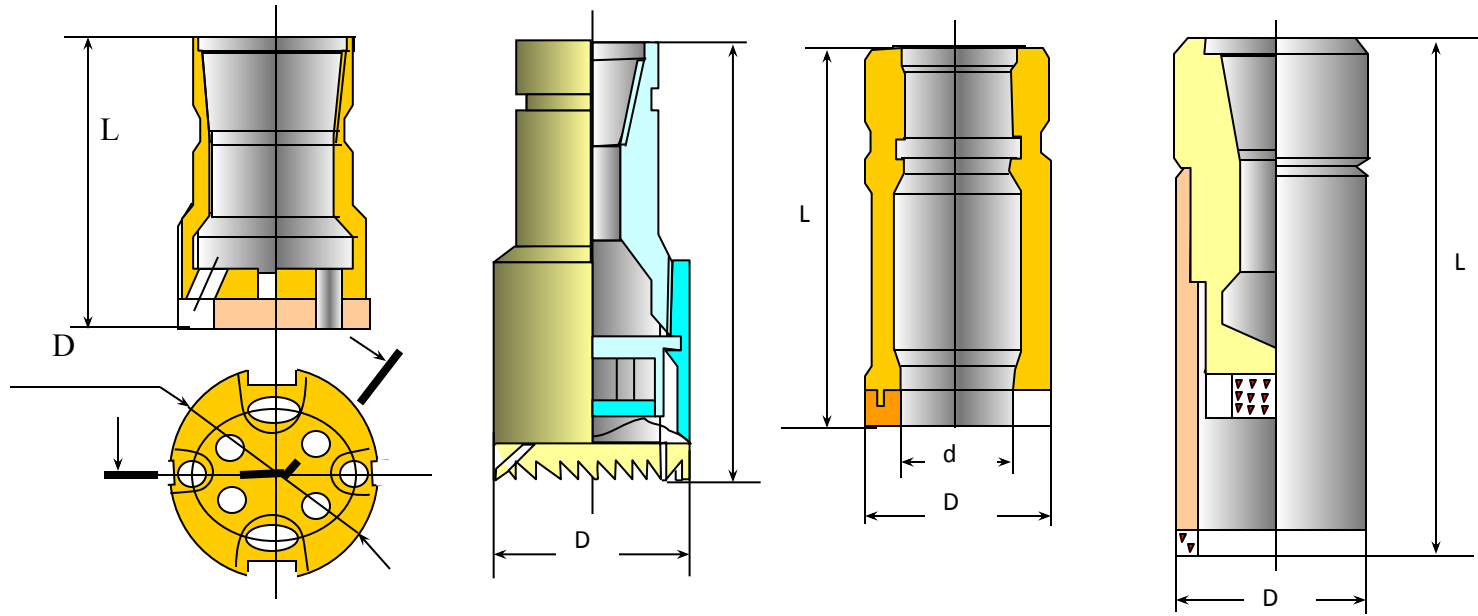
Glossary

- ***A washover pipe*** – труба для улавливания шлама, мелкого мусора с забоя;

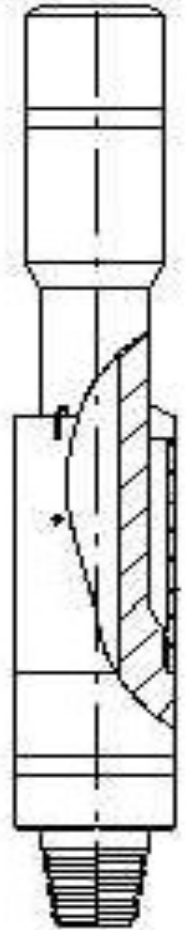
- When a fish is difficult to grip, *a washover pipe* or washpipe is used. Made of large-diameter pipe with a cutting surface at the tip, washpipe is run in the well and then the cutting edge grinds the fish to a smooth surface. Then drilling fluids are pumped into the well to remove debris, and another tool is used to retrieve the remaining fish.

Glossary

- ***a junk mill*** – сплошной торцовый фрезер; металлоизмельчитель;
- ***boot basket*** - ловушка для крупного шлама (устанавливаемая над долотом).

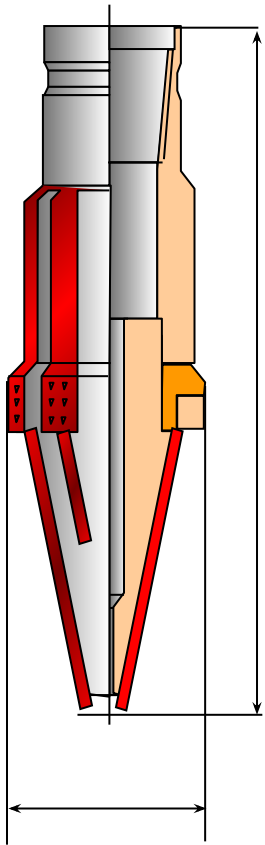


- Sometimes, **a junk mill** and **boot basket** are used to retrieve fish from the wellbore. In this instance, a junk mill is lowered into the well and rotated to grind the fish into smaller pieces. A boot basket, also known as a junk basket, is then lowered into the well. Drilling fluid is pumped into the well, and the ground parts of the fish are raised into the basket and then to the surface by the boot basket.



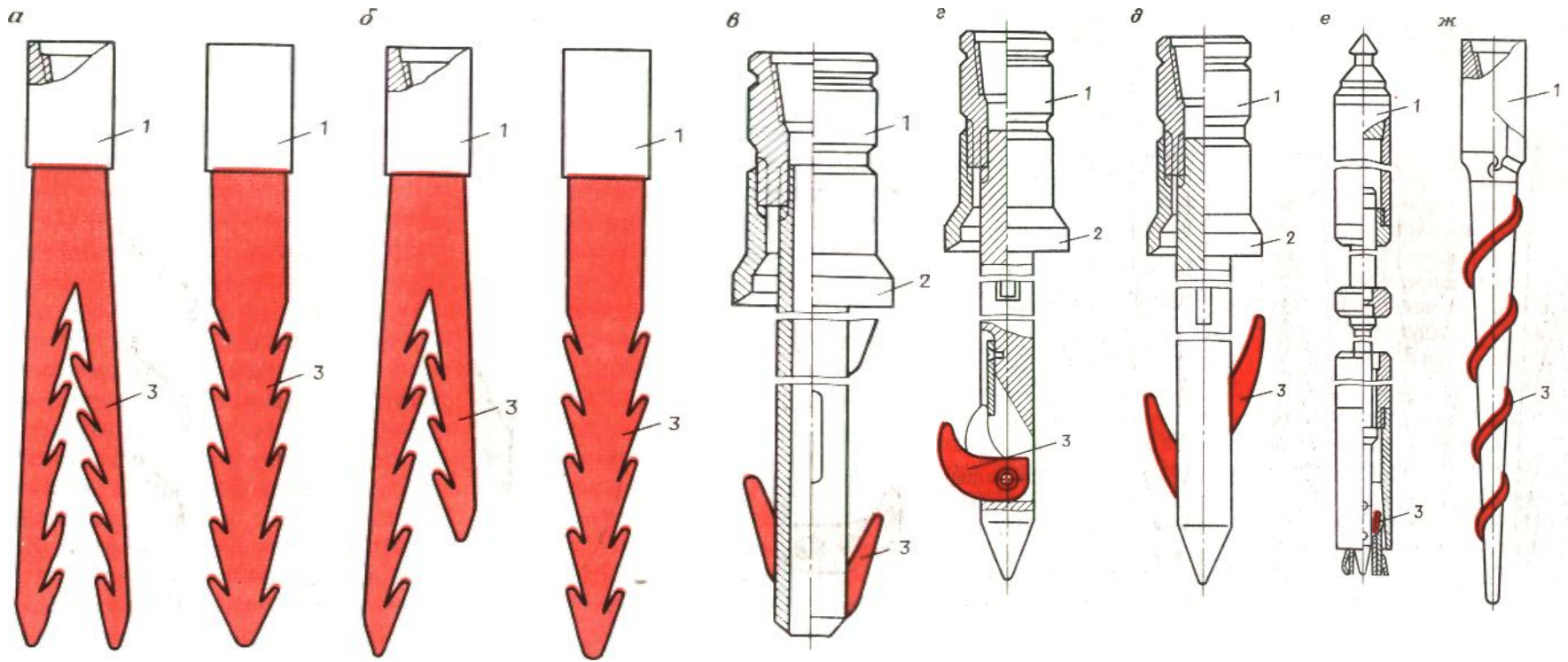
Glossary

- ***a tapered mill reamer*** – торцово-конический (комбинация торцовой и цилиндрической истирающе-режущих поверхностей с конической режущей фрезер; металлоизмельчитель;
- ***a wireline spear*** – инструмент для «ловли» каната, проволоки, кабеля. Также можно отнести удочку и штопор (для растаскивания в колонне запутанных клубков кабеля, каната и т. п.)



- In order to recover casing that has collapsed within the well or irregularly shaped fish, **a tapered mill reamer** can be used. Permanent and magnetic magnets are employed to reclaim magnetic fish, and **a wireline spear** uses hooks and barb to clasp broken wireline. Additionally, an explosive might be detonated within the well to break the fish up into smaller pieces, and then a tool such as a junk bucket is used to retrieve the smaller items.

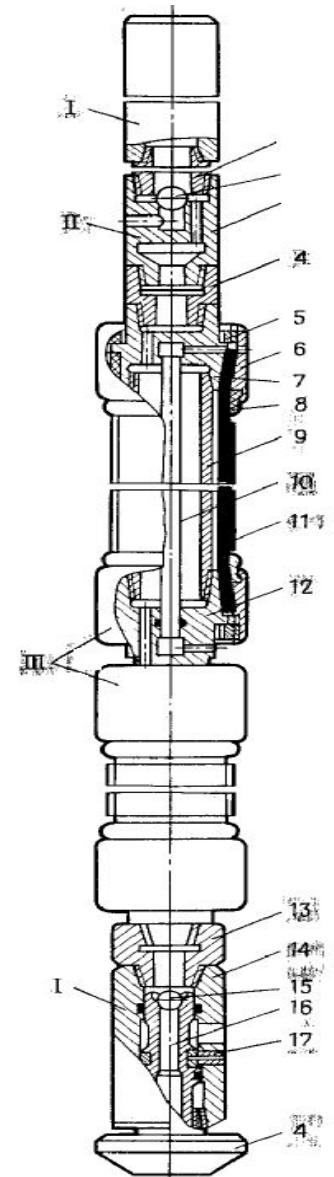
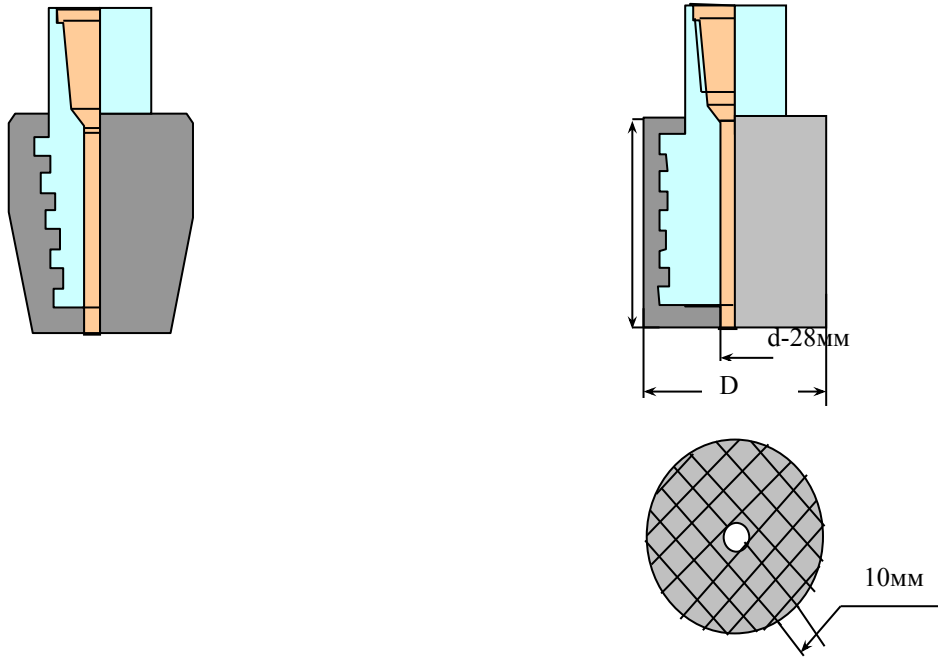




wireline spear

Glossary

- ***an impression block*** – печать (торцевая, конусная и боковая гидравлическая);



- When a fishing professional is unable to determine which fishing tool might work best to retrieve the fish, ***an impression block*** is used to get an impression of the fish and allow the professional to know with what exactly he or she is dealing.

- Fishing a well may take days to complete, and during this time, drilling cannot occur, although the operator is still responsible for drilling fees. Some drilling contractors offer fishing insurance, making operators not responsible for rig fees during fishing operations.

Any questions?