In a nutshell, the non-limiting advantages of the screen panel according to the present invention may be summarized as below:

1.The requirement for replacing the whole panel is done away with, thereby reducing the cost of operation and manufacturing of screen panels.

2. The screen panels are made light weight by making the top portion replaceable either in totality or in part.

3. The flaring design of the screening apertures, ensure prevention of clogging during screening operation.

4. Easy fitting of the panel to the machine frame and easy fitting between the top and bottom portion are ensured.

5. Flexibility and higher longevity are ensured.

Throughout this specification and the claims which follow, unless the context requires otherwise, the word "comprise", and variations such as "comprises" and "comprising", will be understood to imply the inclusion of a stated integer or step or group of integers or steps but not the exclusion of any other integer or step or group of integers or steps.

The reference in this specification to any prior publication (or information derived from it), or to any matter which is known, is not, and should not be taken as an acknowledgment or admission or any form of suggestion that that prior publication (or information derived from it) or known matter forms part of the common general knowledge in the field of endeavour to which this specification relates.

The present invention has been described with reference to some drawings and preferred embodiments, purely for the sake of understanding and not by way of any limitation and the present invention includes all legitimate developments within the scope of what has been described hereinbefore and claimed in the appended claims.

~~We Claim~~**THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:**

1. A screen panel for mining and quarrying industries adapted to be mounted on a screen deck including a wear section and a reinforcement section, said wear section comprising a screening surface made up of materials such as herein described formed on said reinforcement section such as herein described, said wear section being the top portion of said panel and said reinforcement section being the bottom portion of said panel, said wear section and said reinforcement section being separate units and said wear section being adapted to be replaceable from time to time, the reinforcement section having a button type snug fitting for removably fitting the reinforcement section to a machine frame of the screen deck for its replacement from time to time, thereby ~~for~~ ensuring smooth functioning of screening operation.

2. The screen panel ~~as claimed in~~ of claim 1, wherein said screening area comprises abrasion resistant apertures having a flaring design, wherein a cross-sectional area of the aperture is smaller at the upper surface of the wear section than at the lower surface of the wear section.

3. The screen panel ~~as claimed in~~ of claim 1, wherein said wear section is separated into two or more units.

4. The screen panel ~~as claimed in~~ of claim 3 wherein said wear section and said reinforcing section are adapted to be attached to each other by button type snug fitting ~~or by pin and lug arrangement or by bolting~~.

5. The screen panel ~~as claimed in~~ of any ~~preceding claim~~ one of claims 1 to 4, wherein said wear section is made up of polyurethane/rubber/steel and said reinforcement section is a frame made by hot vulcanizing or casting with rubber or polyurethane.

6. The screen panel ~~as claimed in~~ of claim 1, wherein said screening surface is made of any one of or a combination of mild steel, stainless steel, rubber and/or polyurethane with or without steel reinforcing.

7. ____The screen panel ~~as claimed in any preceding~~ of claim 6, wherein said panel comprises of vulcanized material~~,~~ and/or rubber polyurethane, having embedded within it steel reinforcing bars, at the outer edges of said panel and extended across the inner area of said panel, thereby providing support to said screening surface.

~~8. The screen panel as claimed in any preceding claim wherein the reinforcement section of said panel is fitted to the machine frame by button type snug fitting or by pin and lug arrangement or by bolting.~~

~~9~~8. ___A method of manufacturing a screen panel for mining and quarrying industries adapted to be mounted on a screen deck, including ~~designing~~ forming a wear section having a screening surface made up of materials such as herein described and a reinforcement section such as herein described and forming the wear section on said reinforcing section, said method further including making the said wear ~~zone~~ section and said reinforcement ~~zone~~ section as separate units such that, said wear section is replaceable from time to time, and forming a button type snug fitting in said reinforcement section for fitting the reinforcement section to a machine frame of the screen deck for its replacement from time to time, thereby ~~for~~ ensuring smooth functioning of screening operation.

~~10~~9. __A screening deck for mining and quarrying industries, having mounted thereon a plurality of screen panels~~,~~, each ~~said~~ panel including a wear section and a reinforcement section, said wear section comprising a screening surface made up of materials such as herein described formed on said reinforcement section such as herein described, said wear section being the top portion of said panel and said reinforcement section being the bottom portion of said panel, said wear section and said reinforcement section being separate units and said wear section being adapted to be replaceable from time to time, said reinforcement section of said panel having a button type snug fitting coupling the reinforcement section to a machine frame of the screening deck for its replacement from time to time, thereby ~~for~~ ensuring smooth functioning of screening operation.

10. A screen panel of claim 1, wherein the wear section has button type snug fittings formed in each corner of the wear section and the reinforcement section has a plurality of uniformly spaced button type snug fittings formed along its length for removably coupling the wear section to the reinforcement section without separating the reinforcement section from the machine frame.

11. A screen panel of claim 10, wherein a greater number of button type snug fittings couple the wear section to the reinforcement section than couple the reinforcement section to the machine frame.

12. A screen panel of claim 10, wherein the reinforcement section has button type snug fittings formed in its upper surface for coupling to the wear section and button snug fittings formed in its lower surface for coupling to the machine frame of the screen deck.

13. A screen panel of any one of claims 1 to 12, substantially as hereinbefore described with reference to the figures and/or examples.