the desired air pressure of the inflated tire;

inflator with an air source having an air pressure greater than the desired air pressure of the inflated tire.

said inflator comprising first(I) and second(II) air flow circuits,

The client's inflator has a first air flow circuit shown in blue and second air flow circuit shown in red in the attached figure.

each having an inlet end(IE, IE_2) for communicating with a discharge side of the device and an outlet end(OE, OE_2),

Each of the client's air flow circuits has an inlet end (16, 18) in communication with a discharge side of the device and an outlet end (17, 19). Here it is assumed that any point of discharge is a discharge side of the device.

the outlet end(OE_2) of said second flow circuit being adapted to communicate with an inlet valve on the pneumatic tire;

The outlet end (19) of the second flow circuit is adapted to communicate with an inlet valve on a pneumatic tire.

the first circuit(I) includes a manually adjustable regulator means (R) having an inlet communicating with the first circuit inlet end(IE) and an outlet(R_2),

The client's inflator includes a regulator 8 in the first circuit. The regulator 8 has an inlet (17) and an outlet (20) communicating with the first circuit inlet end (18). The client indicates that regulator 8 has "a hole" for excess of flow which was not shown on the submitted drawings but for purposes of review is shown as element (20) in the attached figure. The client indicates that the regulator is manually adjustable.

said regulator means(R) being preset whereby the air pressure at the outlet(R_2) thereof substantially

If the client's regulator can be manually adjusted as presumed, it can be preset. The client has indicated that

corresponds to the desired tire air pressure,

the final pressure at which the device shuts off (pressure in the tire) is a function of the outlet pressure of the regulator 8 which therefore corresponds to the desired tire air pressure.

a pressure sensitive first valve means (11) biased to normally assume an open position and provided with a first inlet(11a) communicating with the outlet(R_2) of said regulator means(R),

The client's first valve I is normally open and does have a first inlet (21) from pipe 4 which communicates with the outlet (20) of regulator 8.

an outlet(11b) adapted to normally communicate with said first inlet,

The client's valve I does have an outlet (22) to pipe 7 which normally communicates with the first inlet (21) from pipe 4.

a second inlet(11c) segregated from said first inlet(11a) and said outlet(11b),

The client's valve I does have a second inlet (23) from pipe 1 which is segregated from the first inlet (21) from pipe 4 and the outlet (22) to pipe 7.

and pressure responsive means(11d) for effecting interruption of the communication between said first inlet(11a) and said outlet(11b) when there is a predetermined pressure at said second inlet(11c) overcoming the opening bias,

The client's valve I has an unnumbered diaphragm which is pressure responsive but does <u>not</u> interrupt communication between said first inlet (21) from pipe 4 and the outlet (22) to pipe 7 when there is a predetermined pressure at the second inlet from pipe 1.

and an air accumulator means(12) communicating with the outlet(11b) of said first valve means(11) and being charged with air flowing from the outlet(11b) of said first valve means(11),

The client's inflator does <u>not</u> have an air accumulator communicating with outlet (22).

said accumulator means(12) having an outlet(12b) communicating with the first circuit outlet end(OE);	The client's inflator has no accumulator having an outlet communicating with the first circuit outlet end.
said second circuit means including a pressure sensitive second valve means(13) biased to normally assume a closed position and provided with a first inlet (13a) communicating with the second circuit inlet end(IE_2),	The second circuit of the client's inflator has a second valve IV with a first inlet (17) communicating with the second circuit inlet end (18). However, this valve IV is normally open not closed.
a second inlet (13b) communicating with the first circuit outlet end(OE_1),	Valve IV does have a second inlet (25) communicating with the outlet end of pipe 4 of circuit 1 but there is no air accumulator between the first valve and second valve as claimed in the patent.
an outlet(13c) communicating with the second circuit outlet end(OE_2),	Valve IV does not appear to have and outlet communicating with the second circuit outlet end.
and a pressure responsive means(13d) for effecting opening of said second valve means(13) and communication between the first inlet(13a) and outlet(13c) thereof when the air pressure at the second inlet(13b) overcome the closing bias,	Valve IV does have an unnumbered diaphragm which is pressure responsive and is normally open. But it does not permit communication between first inlet and outlet thereof because there is no such outlet. This valve is normally open not closed and a certain air pressure from the second inlet would open the valve from a closed position.
and the second inlet(11c) of said first valve means(11) and the outlet end(OE_2) of said second circuit being in continuous communication with	The second inlet (23) of said first valve means I is not in continuous communication with the outlet end (26) of the second circuit

one another whereby the pressure responsive means(11d) of said first valve means(11) is responsive directly to air pressure within the inflated pneumatic tire.	in the client's inflator. Instead, the pressure responsive means of the first valve means I <u>when closed</u> prevents communication between second inlet (23) and the outlet (26) of the second circuit.

There appears to be no literal infringement by the device of the sketch in regard to claim 1, the only independent claim.

<u>Infringement Under the Doctrine of Equivalents</u>

There is a chance that the device of the sketch could be found to infringe the McAnally patent through doctrine of equivalents. Under this doctrine, infringement can be found regardless of the literal meaning of the claims if the accused device performs the same function, in the same way, to get the same result. We note however that this doctrine has considerably eroded in recent years to the point that very few infringements have been declared under the doctrine. The function for both devices is to control the flow of air from a source of pressurized air into a tire to be inflated. It could be argued that the way this function is achieved is the same or at least similar.

However, there are several factors against a finding of equivalence. First, the client's inflator does not rely on the use of an air accumulator as required in McAnally. In addition, neither McAnally's first or second valve works in the same sequence as the client's valves. The diaphragm of the client's first valve does not interrupt communication between inlet (21) and outlet (22) as in McAnally. Further, the client's second valve is normally open not closed as in McAnally. Because of this it could be counterargued that the device of the sketch is not functionally equivalent to the McAnally device, and that therefore it does not perform the same function, leading away from any finding of infringement under the doctrine of equivalence.

This is further supported by the fact that the client's second inlet (23) in the first valve is not in continuous communication with the outlet end (26) of the client's second circuit. Indeed, the pressure responsive means of the client's first valve when closed prevents communication between second inlet (23) and the outlet (26) of the second circuit. This strongly suggests that the two inflators function on the basis of different principles.

Because the other claims are dependent from claim 1, they can only be narrower still, and therefore under the doctrine of equivalence could likewise not be found infringed by the device of the sketch where claim 1 has not been found so infringed.

CONCLUSION

It appears that it is very unlikely that the device of the sketch would be found to infringe the claims of McAnally U.S. Patent 4,872,492, even if valid.

However, please note that this opinion must be considered as being preliminary because it was done without having considered the file history of U.S. Patent 4,872,492. A complete evaluation would require consideration of the file history, since patent claims are properly interpreted in light of the file history.

Furthermore, conclusions reached are based on information received from the client. If such information is not accurate or incomplete, the legal conclusion might be different.

Finally, we must advise that patent law is complex, and is not consistently applied by patent attorneys, by examiners or by the courts. Consequently, no guarantee can be made that the client will not be sued, or, if sued, that he will prevail, even if you have been advised that a patent claim is not infringed, or, if nominally infringed, that it is invalid or unenforceable.

Our debit note for services is attached. Our charges are much higher than estimated because we found after making a first comparison that we could not render an opinion without knowing how regulator 8 worked. Because the client's April 25 description of how the regulator worked was not consistent with the original descriptions, we needed to redo the comparison. Even so we have not charged for all the time involved. We apologize if this creates a problem with the client. If so, given our long standing relationship we would be open to a suggested adjustment.

Sincerely,

Norman J. Latker
Managing Attorney

NJL:edg
Enclosures
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