

Fragmentation

//constructor called

buffer[BUF_SIZE]

\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0
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char* a=simple_mem_manager.allocate_chars(3);

i	n		\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0	\0
---	---	--	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

char* b=simple_mem_manager.allocate_chars(7);

i	n		F	r	e	n	c	h		\0	\0	\0	\0	\0	\0	\0	\0	\0	\0
---	---	--	---	---	---	---	---	---	--	----	----	----	----	----	----	----	----	----	----

char* c=simple_mem_manager.allocate_chars(7);

i	n		F	r	e	n	c	h		c	h	a	p	e	a	u	\0	\0	\0
---	---	--	---	---	---	---	---	---	--	---	---	---	---	---	---	---	----	----	----

simple_mem_manager.free_chars(a);

\0	\0	\0	F	r	e	n	c	h		c	h	a	p	e	a	u	\0	\0	\0
----	----	----	---	---	---	---	---	---	--	---	---	---	---	---	---	---	----	----	----

char* d=simple_mem_manager.allocate_chars(3)

t	o	p	F	r	e	n	c	h		c	h	a	p	e	a	u	\0	\0	\0
---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---	----	----	----

simple_mem_manager.free_chars(b);

t	o	p	\0	\0	\0	\0	\0	\0		c	h	a	p	e	a	u	\0	\0	\0
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char* e=simple_mem_manager.allocate_chars(8);

Stack would remain the same, not 8 contiguous spots available.

char* f=simple_mem_managers.allocate_chars(3);

t	o	p	h	a	t	\0	\0	\0		c	h	a	p	e	a	u	\0	\0	\0
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